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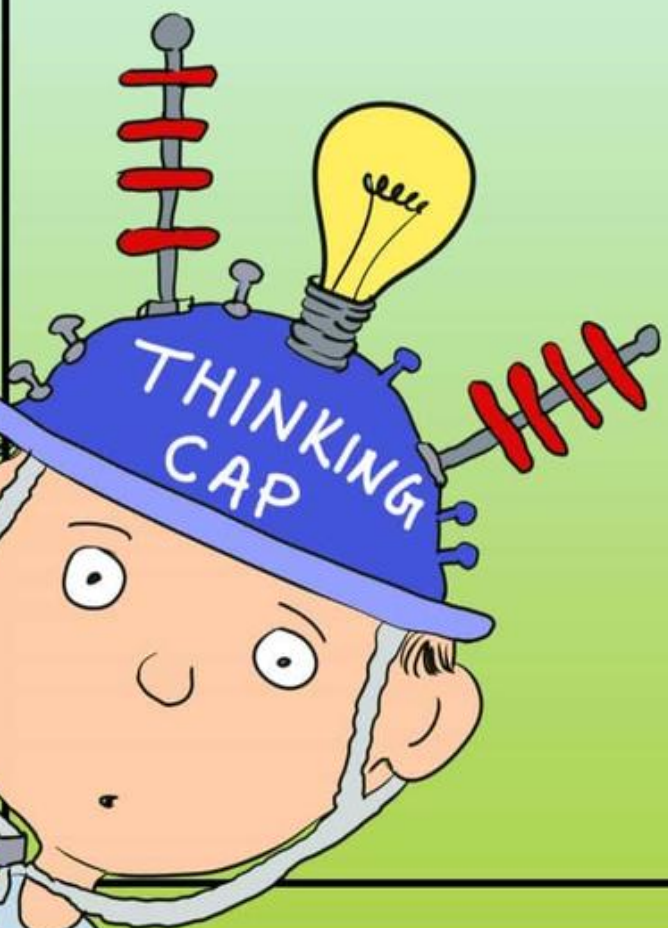

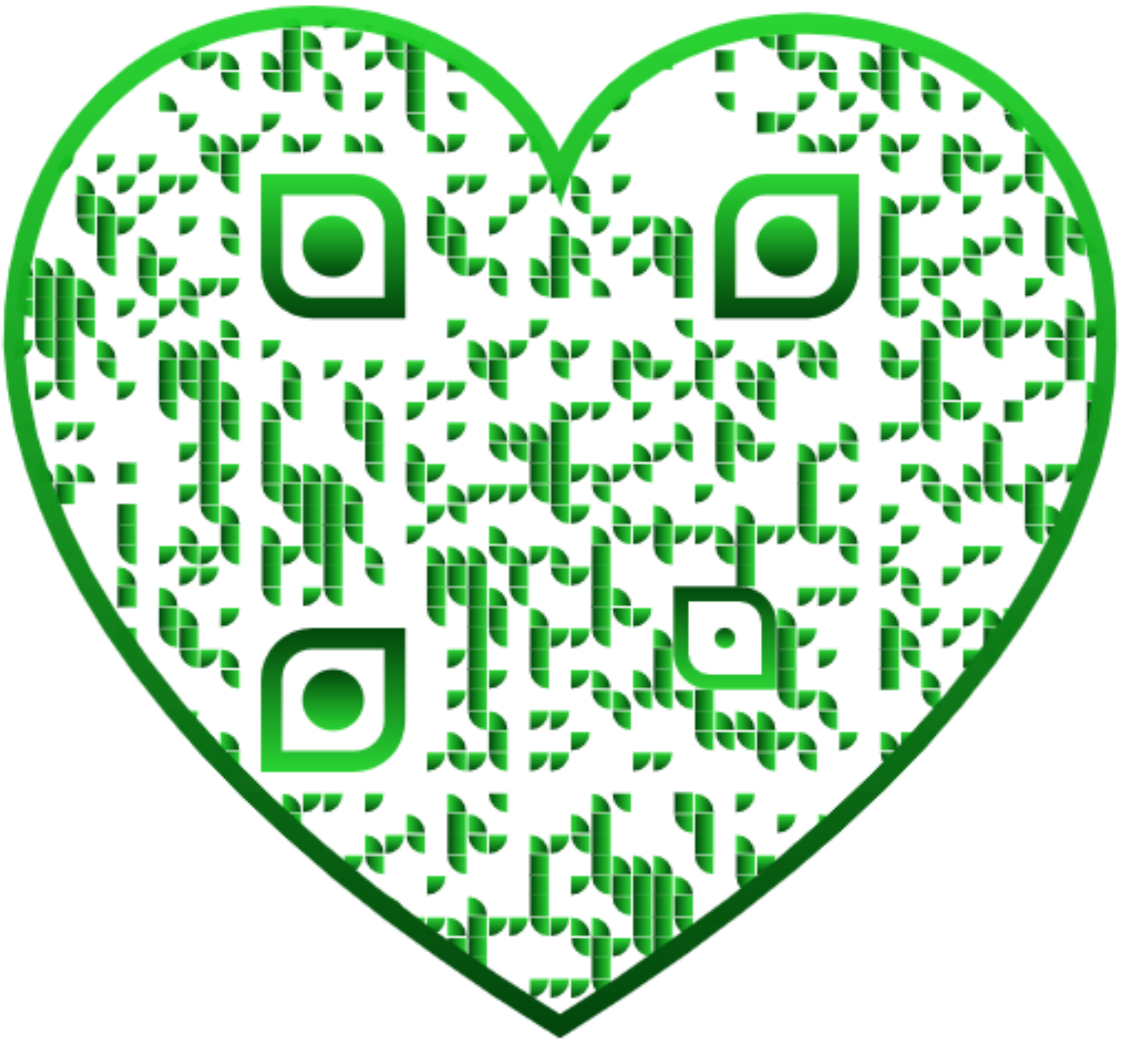

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GENERAL PHARMACOLOGY

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Enzyme Inducers

G = Griseofulvin
P = Phenytoin
R = Rifampicin
S = Smoking

Cell = Carbamazepine
Phone = Phenobarbitone

Enzyme Inhibitors

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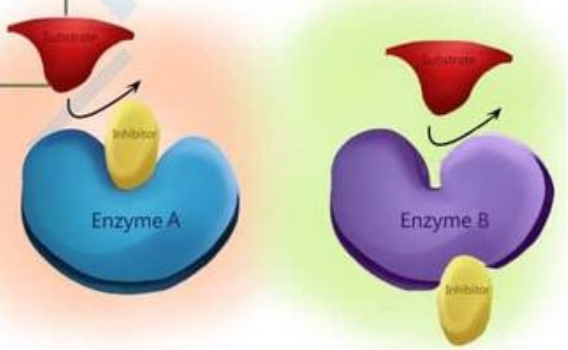
Valproate
Ketoconazole
Cimetidine
Ciprofloxacin
Erythromycin
INH

"Vitamin K Cannot
Cause Enzyme Inhibition"



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Inhibitors of Cytochrome P 450

I → Isoniazid
Am at → Allopurinol
C → Cimetidine
C → Chloramphenicol
D → Disulfiram

©_ Noor

PgP Inhibitors

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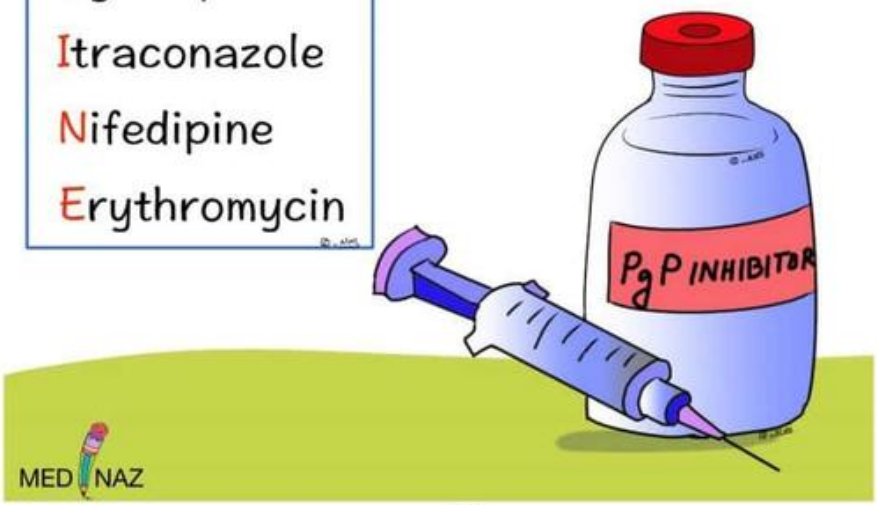
Verapamil
Amiodarone
Cyclosporine
Itraconazole
Nifedipine
Erythromycin

"VACINE"



Drugs whose Absorption
is increased by Fatty food

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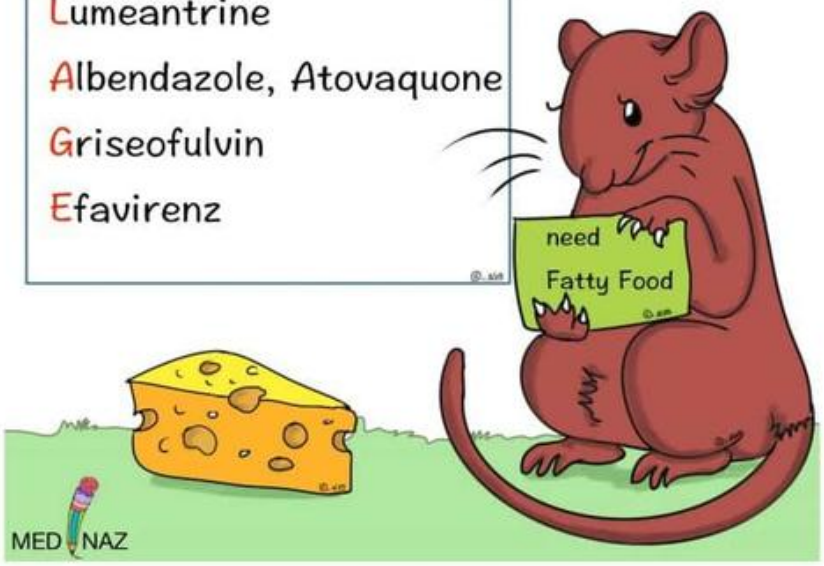
Posaconazol
Lumeantrine
Albendazole, Atovaquone
Griseofulvin
Efavirenz

"PLAGuE"



Acidic Drugs

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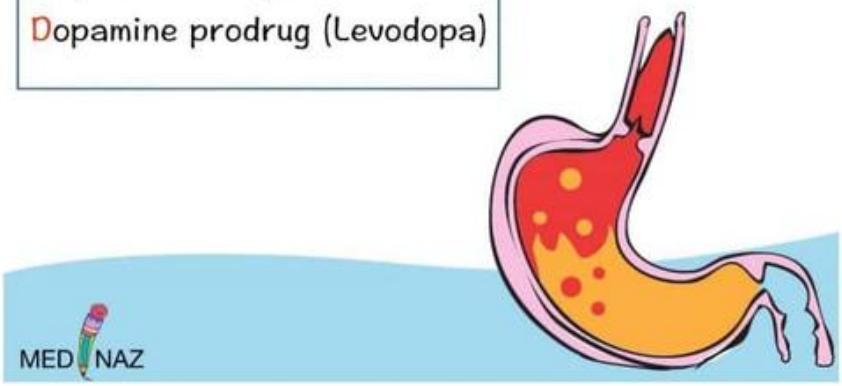
Warfarin
Antiepileptic
(Phenobarbital, Phenytoin)
Chlorothiazide
Ibuprofen & Aspirin
Dopamine prodrug (Levodopa)

"Weak ACID"



Phase I reactions

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Oxidation
Reduction
Cyclisation
Hydrolysis
Alipathic & Aromatic hydroxylation
Deamination

"ORCHAD"

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Phase II reactions

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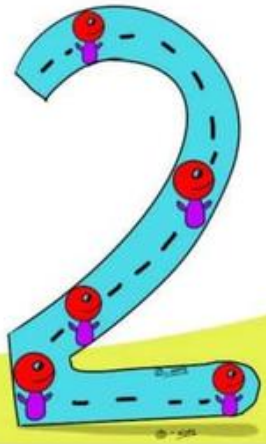
Glucuronidation,
Glutathionylation,
Glycination
Acetylation
Methylation
Sulfation

"GAMeS"



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Dialysis is not effective

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Benzodiazepines, Beta blockers
Amphetamine
Digoxine
Digoxine
Opioids, Organophosphates
CCBs, Chloroquine

"BAD DOC"

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Drugs metabolized by Acetylation

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Sulfonamides
Dapsone
Isoniazid
Nitrazepam
Clonazepam
Hydralazine
Acebutalol, Amantidine, Amrinone
K(c)affine
Procainamide, Phenelezine

"Singer DINCHAK Pooja"

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Hit & Run Drugs

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MAO inhibitors
Omeprazole
Reserpine
Guanethidine

"MORGue"

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Key points

Drug whose terminal half-life is longer than biological half life show this phenomenon

PPIs have short half-life of 5-2 hrs, but duration of action is 24-36 hrs due to irreversible binding

Therapeutic Index Formula

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TI = LD 50 / ED 50

"TILE"

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Key points

It is a measure of the safety of a drug
High TI means safer drug
Low TI means drug is more likely to be toxic

Drugs Showing Zero Order Kinetics

Zero WATT Power

W = Warfarin

A = Alcohol & Aspirin

T = Theophyline

T = Tolbutamide

Power = Phenytoin

AUTONOMIC NERVOUS SYSTEM

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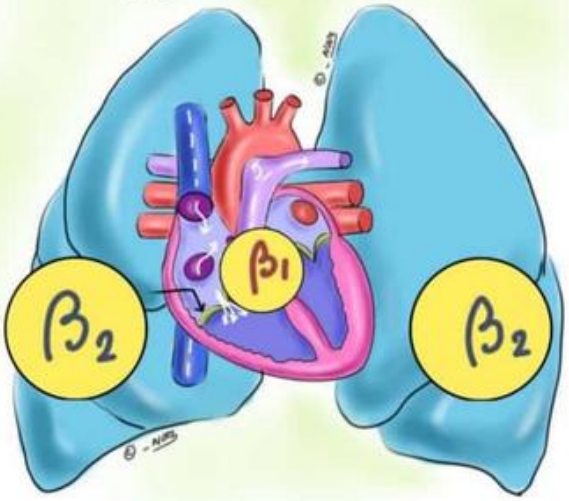
Beta 1 & 2 Receptors

Beta 1 receptor = Heart Beta 2 receptor = Lungs	We have 1 heart and 2 lungs



Adrenoceptors: vasomotor function

of alpha vs. beta

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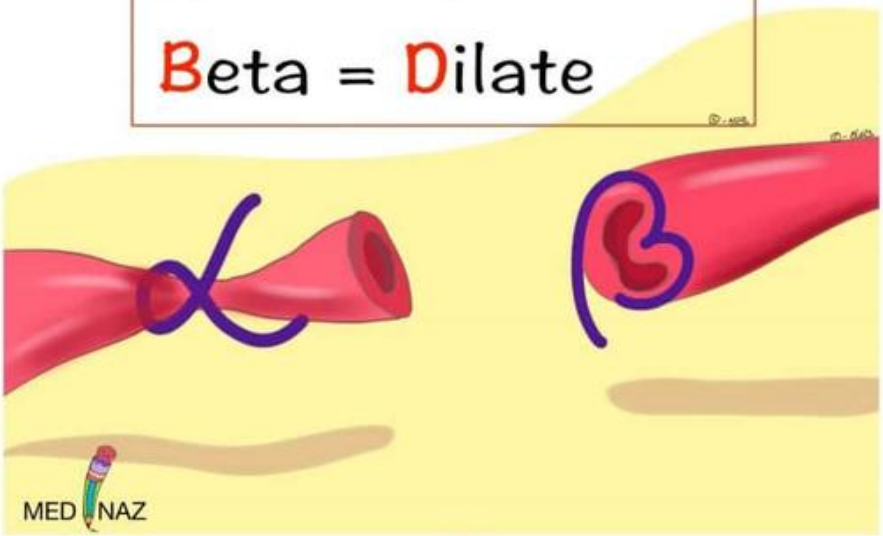
A B C D

Alpha = Constrict

Beta = Dilate



Beta Agonists Side effects

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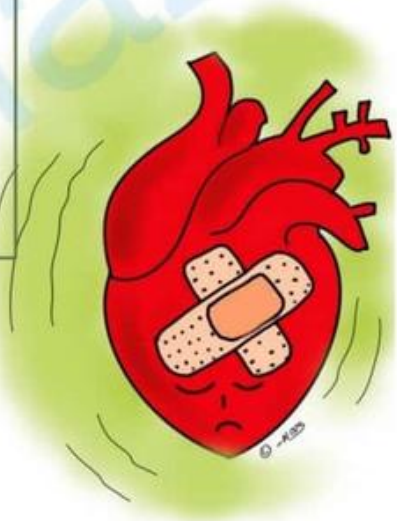
"3 T"

Tolerance
Tachycardia
Tremor



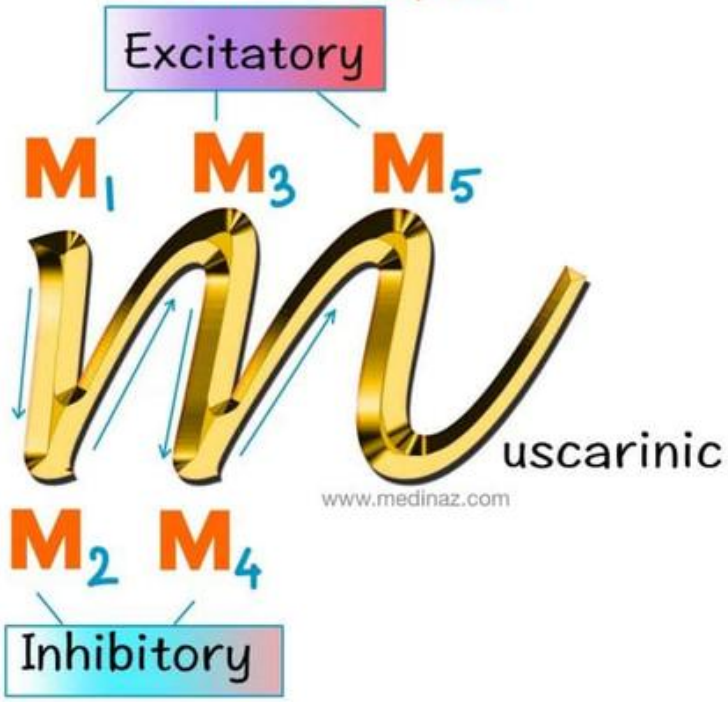
Beta-blockers with
Intrinsic Sympathomimetic Activity

"**CO**ntain **P**artial
Agonostic **A**ctivity"

Celiprolol, **O**xprenolol
Pindolol, **P**enbutolol
Alprenolol
Acebutolol

Easy way to Remember

Muscarinic receptors



Atropine Side-effects

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Hot as a hare
Dry as a bone
Red as a beet
Blind as a bat
Mad as a hatter
Full as a flask

MAOI Side-effects

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3 "H's"

Hepatocellular Jaundice

Hyperthermia

Hypertension

Neostigmine Vs Physostigmine

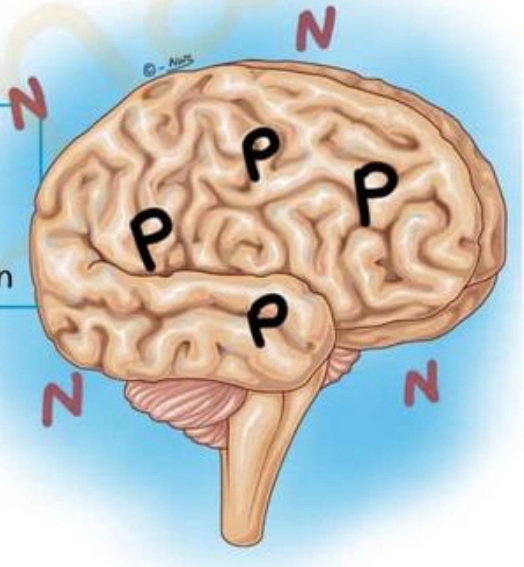
Neostigmine

Neo CNS = No CNS penetration

Physostigmine:

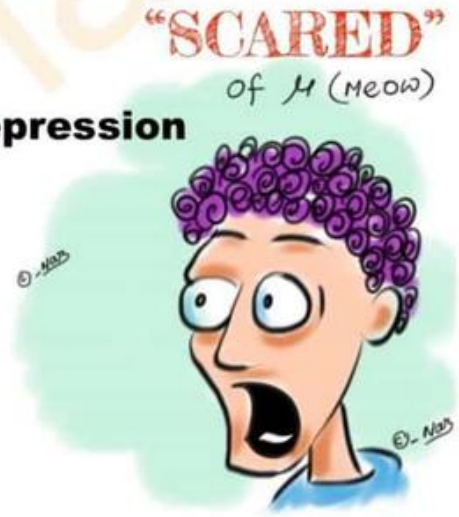
Phreely (freely)

crosses blood-brain



OPIOID μ receptor effects

Sedation
Constipation
Analgesia
Respiratory depression
Euphoria
Dependency



Beta-1 Selective Blockers

BISOPROLOL
ESMOLOL
ATENOLOL
METOPROLOL

Anticholinergic effects

Can't Pee
Can't See
Can't Spit
Can't Shit

Other Mnemonic

- Blind as a bat (dilated pupils)
- Red as a beet (vasodilation/flushing)
- Hot as a hare (hyperthermia)
- Dry as a bone (dry skin)
- Mad as a hatter (hallucinations/agitation)

SSRI's Side-effects

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Stomach upset
Sexual dysfunction
Serotonin syndrome

3 "S"

@raz

CARDIOVASCULAR SYSTEM

@NEETPGSURGEON

Drugs used for the t/t of Hypertension in Pregnancy

Better = β- bLocker
Mother = Methyl dopa
Care = Clonidine
During = Dihydropyridine
Hypertensive = Hydralazine
Pregnancy = Prazosin

Drugs for Bradycardia and Hypotension

IDEA

Isoprenaline
Dopamine
Epinephrine
Atropine Sulfate

Amiodarone

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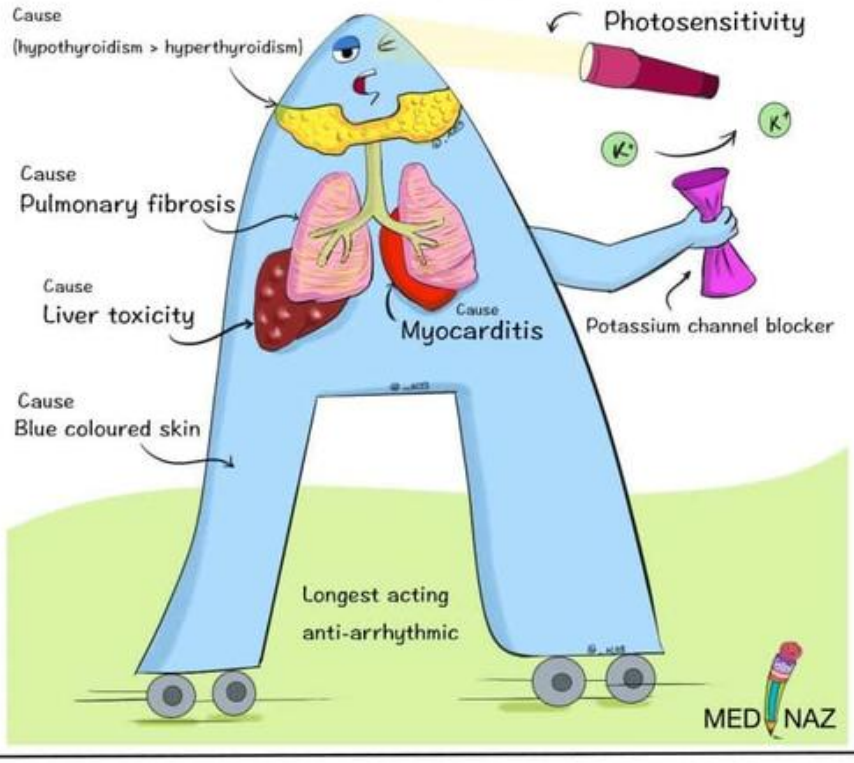

Amiodarone side-effects

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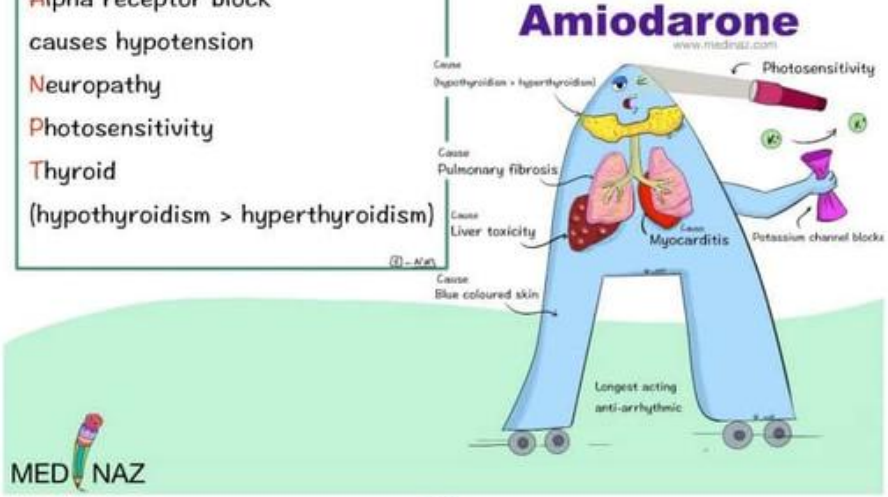
Pulmonary fibrosis
Corneal microdeposits
Blue coloured skin
Myocarditis
Liver toxicity
Alpha receptor block
causes hypotension
Neuropathy
Photosensitivity
Thyroid
(hypothyroidism > hyperthyroidism)

"Potassium Channel Blocker Makes
Liver And Nerve Photo Toxic"



Antiarrythmic class 1A

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Quinidine
Procainamide
Disopyramide

Antiarrythmic Class 1B

www.medinaz.com

Phenytoin
Lidocaine
Mexiletene
Tocainide

* shorten repolarization

"Preferably I Buy Lido's Mexican Toffee"

Antiarrythmic Class IC

www.medinaz.com

Moricizine
Flecainide
Propefanone

"More Fries Please !!
I Can eat"

Antiarrhythmic drugs Class III

www.medinaz.com

Sotalol
Amiodarone
Dofelitide

"SAD"

Antiarrhythmic drugs Class III

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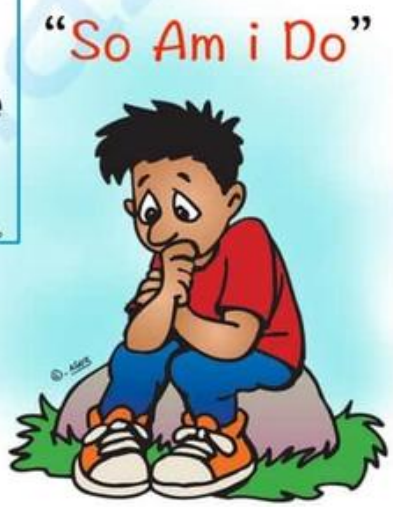
Sotalol
Amiodarone
Dofelitide



Beta 2 Agonists

Salmeterol
Metaproterenol
Aluterol
Ritodrine
Terbutaline

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Beta blocker members

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The	Timolol
N	Nadolol
E	Esmolol
P	Pindolol
A	Atenolol
L	Labetalol
Prime	Propranolol
Minister	Metoprolol

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Beta-blockers: main contraindications

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Asthma
Block (heart block)
COPD
Diabetes mellitus
Electrolyte (hyperkalemia)

"ABCDE"

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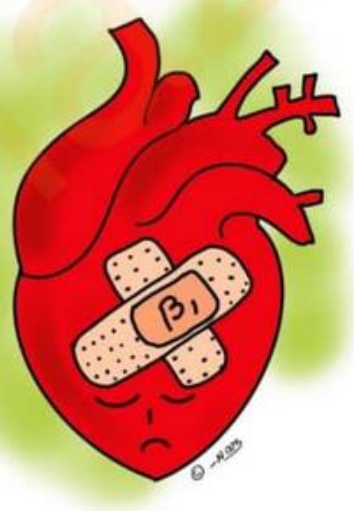
Cardioselective Beta-blockers

Nebivolol
Betaxolol
Bisoprolol
Acebutolol
Esmolol
Atenolol
Metoprolol
Celiprolol

"**N**ew **B**eta **B**lockers **A**cting **E**xclusively **A**t **M**yo **C**ardium"



Dilated cardiomyopathy

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Caused by:
Doxorubicin
Daunorubicin

Prevent with:
Dexrazoxane

"D"

Contraindications of Digitalis

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Carditis (myocarditis)
Increased calcium
WPW syndrome
Hypokalemia & **H**ypomagnesemia
Elderly
AV block (partial)
Renal failure
Thyroid (hyper or hypo)

"Contraindicated In Weak HEART"

Hyperglycemia causing Drugs

www.medinaz.com

Tacrolimus
Protease inhibitors
Niacin
HCTZ
Corticosteroids

"The People Need Hard Candies"

Management of PSVT

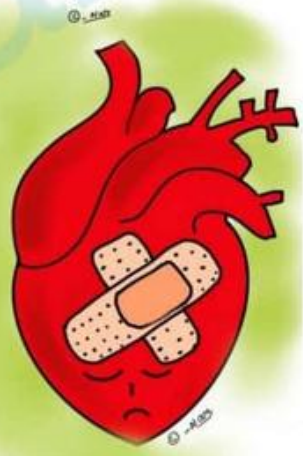
(Paroxysmal SupraVentricular Tachycardia)

Adenosine > Beta (β) blocker

> Calcium channel blocker (verapamil) > Digoxin

www.medinaz.com

A > B > C > D



DRUGS CAUSING TORSADES DE POINTES

Cisapride

Haloparidol

Erythromycin

Amiodarone, Arsenium

Procainamide

Drugs cause Torsades de pointes

Amiodarone
Procainamide
Arsenium
Cisapride
Haloperidol
Erythromycin

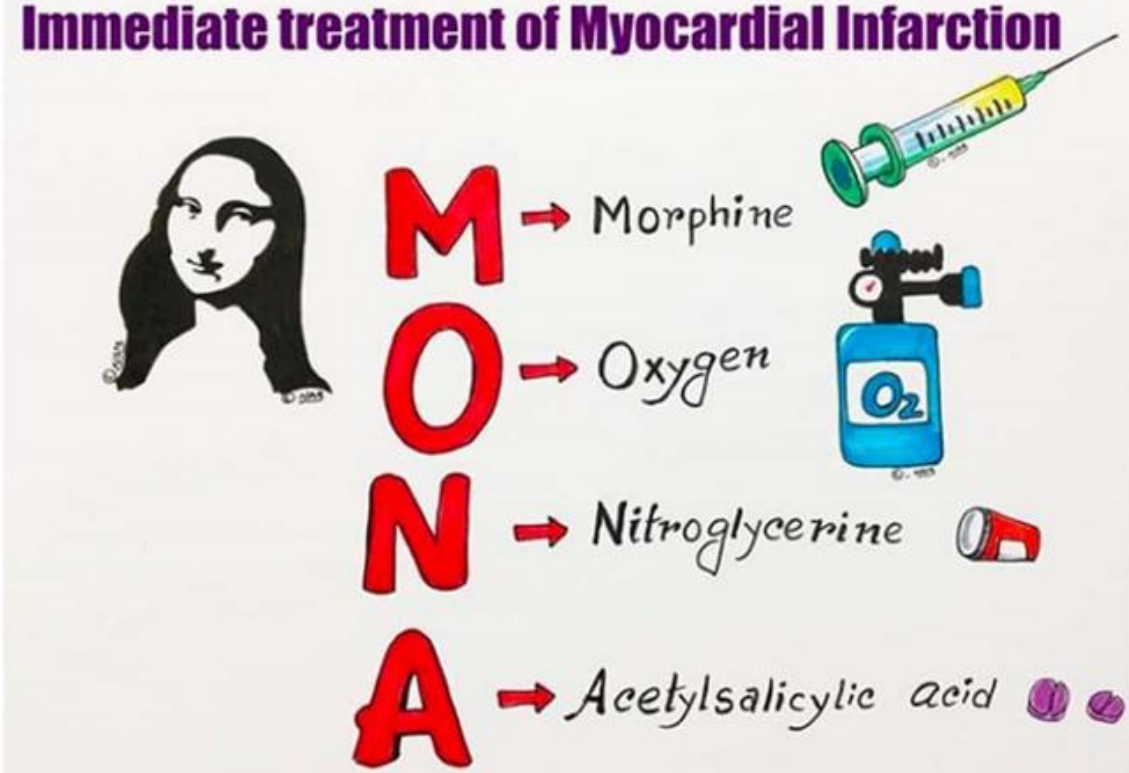
© _ Nats

Adverse Effects of Beta Blockers

Bronchoconstriction
Bradycardia
Arrhythmias
Lethargy
Disturbance in glucose metabolism
Fatigue
Insomnia
Sexual dysfunction
Hypotension

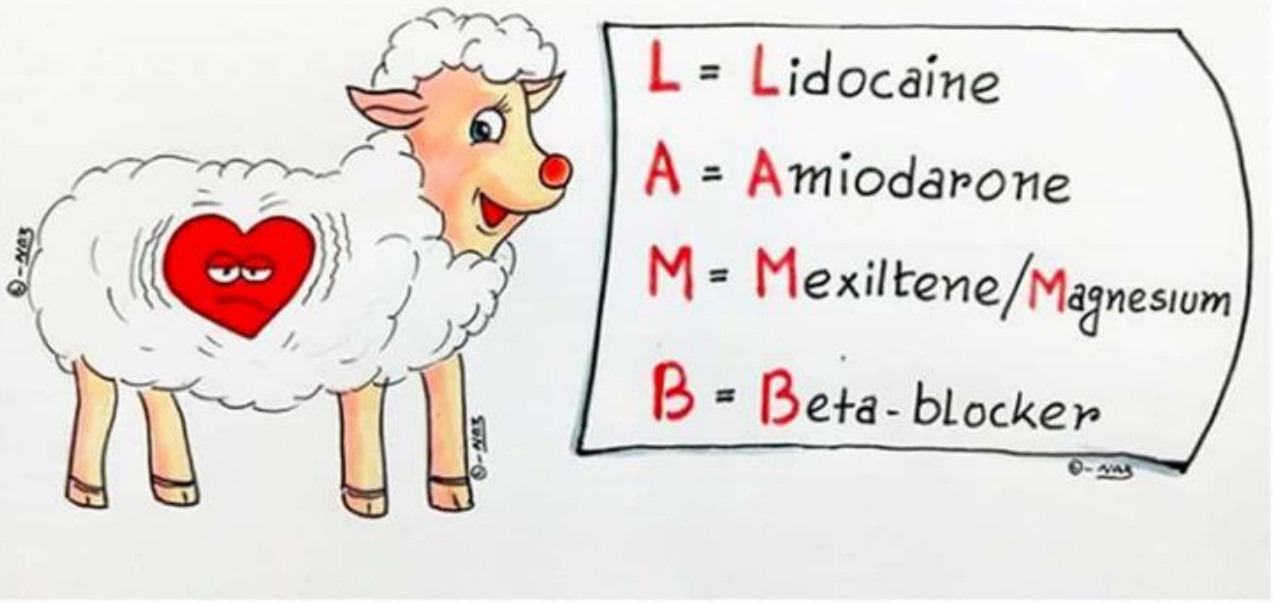
© _ Nats

Immediate treatment of Myocardial Infarction



MORPHINE	To reduce pain and anxiety, also has other beneficial effects as a vasodilator and decreases the workload of the heart by reducing preload and afterload
OXYGEN	To provide and improve oxygenation of ischemic myocardial tissue; enforced together with bed rest to help reduce myocardial oxygen consumption. Given via nasal cannula at 2-4 L/min.
NITROGLYCERIN	Cause vasodilation and increase blood flow to the myocardium
ASPIRIN	Prevents the formation of Thromboxane A2 which causes platelet aggregation and arterial constriction. Earlier the patient receives ASA after symptom onset, the greater the potential benefit

Ventricular Trachycardia treatment



Supraventricular Tachycardia T/t

www.medinaz.com

Adenosine
Beta blocker
Calcium channel blocker
Digoxin
Excitation (vagal stimulation)

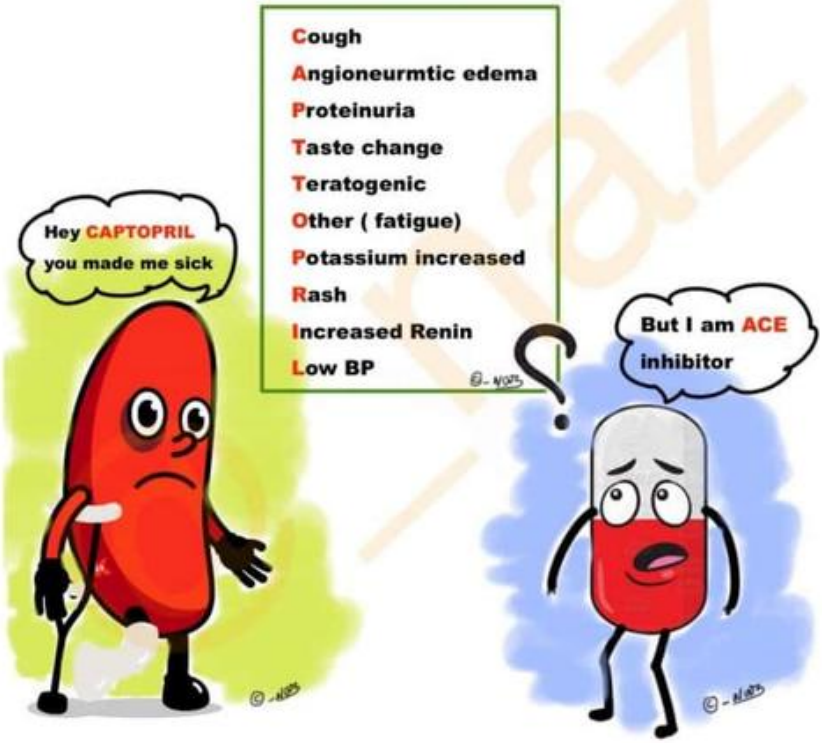
"ABCDE"

@_naz

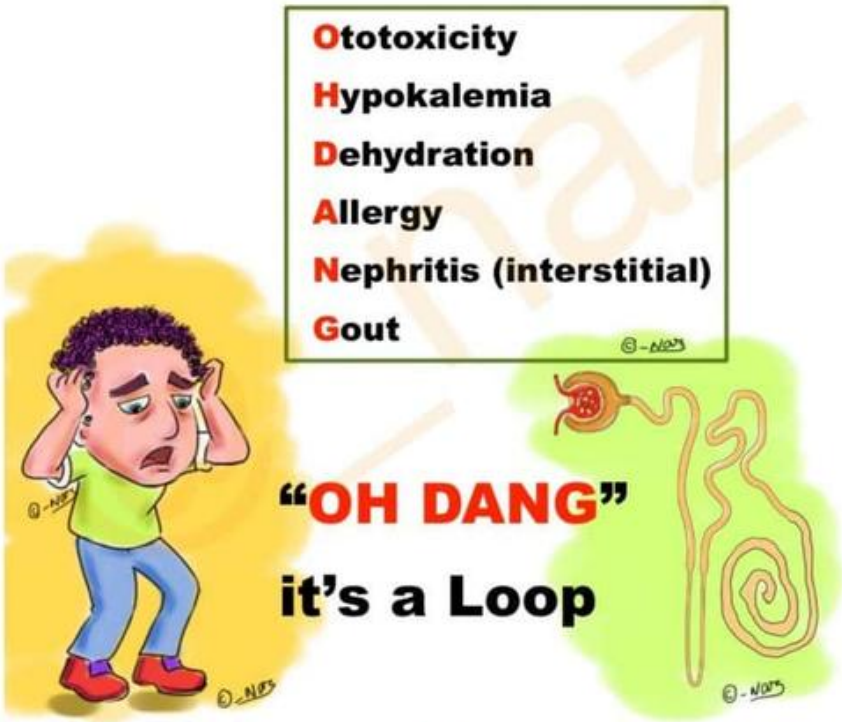
KIDNEY

@NEETPGSURGEON

ACE inhibitor side effects



Loop Diuretics Side effects



Osmotic Diuretics

www.medinaz.com

Mannitol

Urea

Glycerol

Potassium sparing Diuretics

Spironolactone

EPLerenone

AmiLoride

Triamterene

DIURETICS

Loop diuretics

Osmotics

Thiazides

Carbonic anhydrase inhibitors

Aldosterone inhibitors

Na+ channel blockers

Leak **O**ver **T**he **CAN**

CENTRAL NERVOUS SYSTEM

@NEETPGSURGEON

Uses of Anti-depressants

D = Depression
E = Enuresis
P = Phobid
R = Recurrent panic attacks
E = Eating disorders (Bulimia)
S = Smoking Cessation
S = Stress disorder
I = Impulse disorder
O = Obsessive Compulsive disorder
N = Neupopathic pain

Migraine Prophylaxis Drugs

Very → VerapamiL
VoLatile → Valproic Acid
Pharmaco → Pizotifen
Agents → AmitriptyLine
For → FLunarizine
Migraine → Methysergide
ProphyLaxis → PropranoLoL

Use of Antipsychotics

www.medinaz.com

ANTI-emetics
PSYchosis
CHOrea
TIC disorders
(gille de la torrette syndrome)

Short Acting Benzodiazepines

www.medinaz.com

Short acting
Triazolam, **T**emazepam
Oxazepam
Lorazepam
Estazolam

Benzodiazepine withdrawal symptoms

www.medinaz.com

Insomnia
Sweating
Tremor
Anorexia
Nightmares
Dysphoria, Dizziness

"I can't STAND"

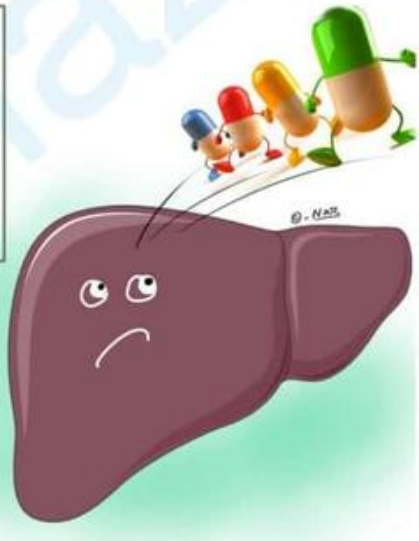
MEDINAZ

Benzodiazepines undergo Extra-hepatic metabolism

www.medinaz.com

"Outside The Liver"

Oxazepam
Temazepam
Lorazepam



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Carbamazepine side-effects

www.medinaz.com

Hyponatremia, Hepatotoxic
Eosinophillia
Agranulocytosis, Ataxia, Aplastic anemia
Diplopia
SJS, Splenomegaly

Clozapine Side-effects

www.medinaz.com

Myocarditis
Agranulocytosis
Seizures
Sialorrhea
Gain (weight)

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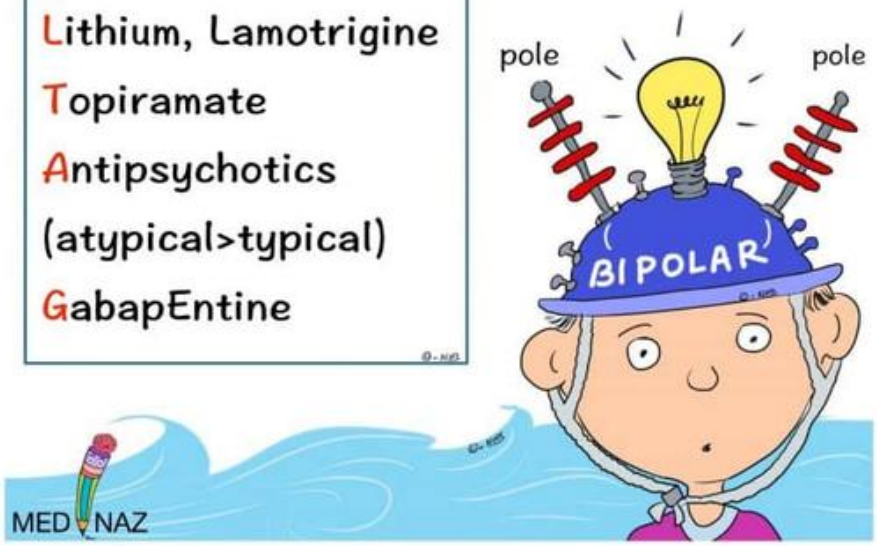
Drugs used in Bipolar Disorder

www.medinaz.com

Valproate
Oxcarbazepine,
Carbamazepine
Lithium, Lamotrigine
Topiramate
Antipsychotics
(atypical>typical)
GabapEntine

"VOLTAGE"

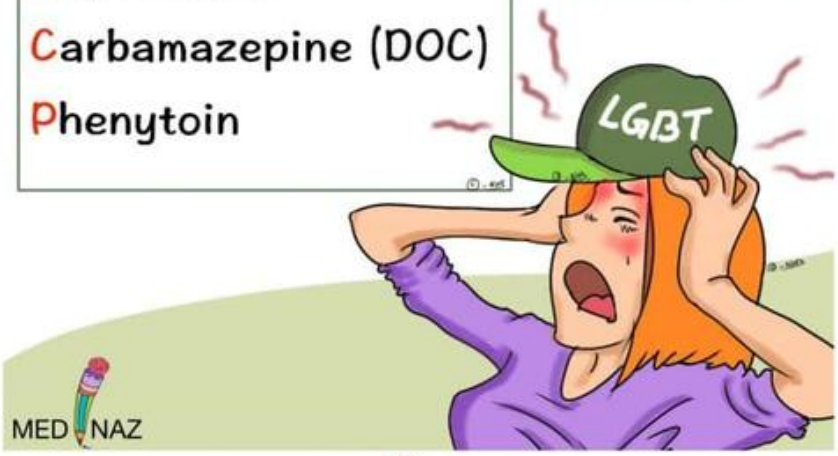


Drugs used in Trigeminal neuralgia

www.medinaz.com

Lamotrigine
Gabapentin
Baclofen
Topiramate
Carbamazepine (DOC)
Phenytoin

"LGBT CaP"



Drugs used for Myoclonic Seizures

www.medinaz.com

Levetiracetam
Lamotrigine
Topiramate
Valproic acid (**DOC**)
Benzodiazepines
Zonisamide

"Let's Lock The Very Bad Zombie"

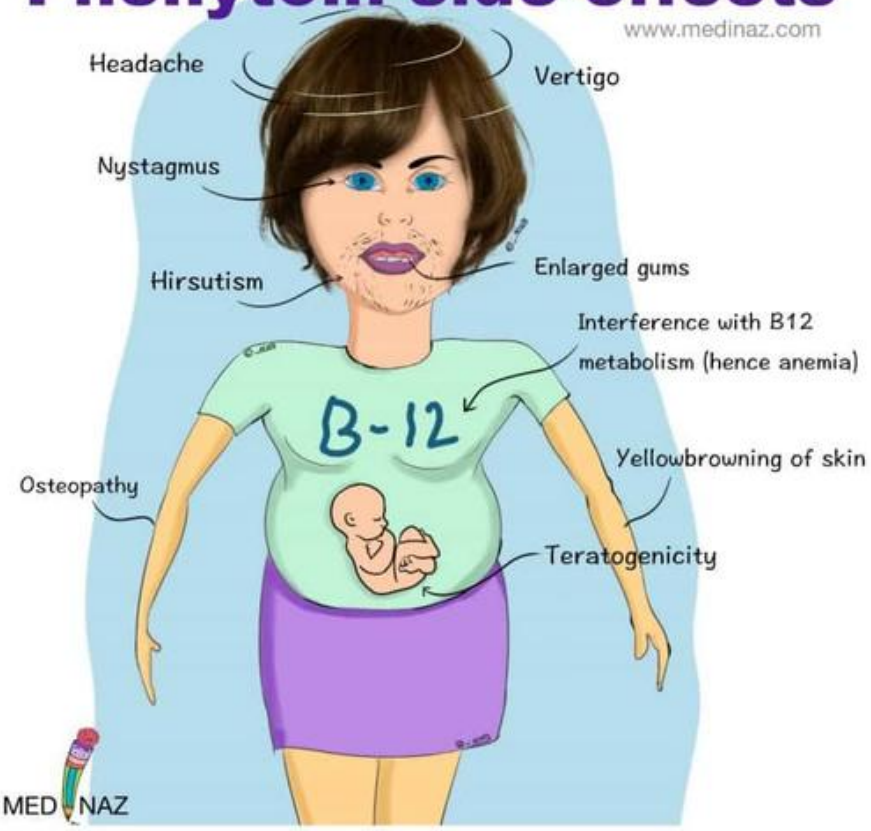
Opioids Effects

www.medinaz.com

Bradycardia & Hypotension
Anorexia
Diminished pupillary size
Analgesia
Miosis
Euphoria
Respiratory depression
Increase smooth muscle activity (biliary track constriction)
Constipation
Ameliorate cough reflex
Nausea & Vomiting
Sedations

"BAD AMERICANS"

Phenytoin side-effects



phenytoin side effects

P = P-450 drug interactions

H = Hirsutism

E = Enlarged gums (gingival hyperplasia)

N = Nystagmus

Y = Yellow discoloration of Skin

T = Teratogenic

O = Osteomalacia

I = Interfere with folate/B12 absorption

N = Neuropathies : Vertigo, Ataxia

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Morphine side effects

Miosis
Out of it (sedation)
Respiratory depression
Pneumonia (Aspiration)
Hypotension
Infrequency (Constipation, Urinary retention)
Nausea
Emesis

SSRI's

www.medinaz.com

Escitalopram	"Effective For Sadness, Panic, Compulsions"
Fluoxetine, Fluvoxamine	
Sertroline	
Paroxetine	
Citalopram	

ANAESTHESIA

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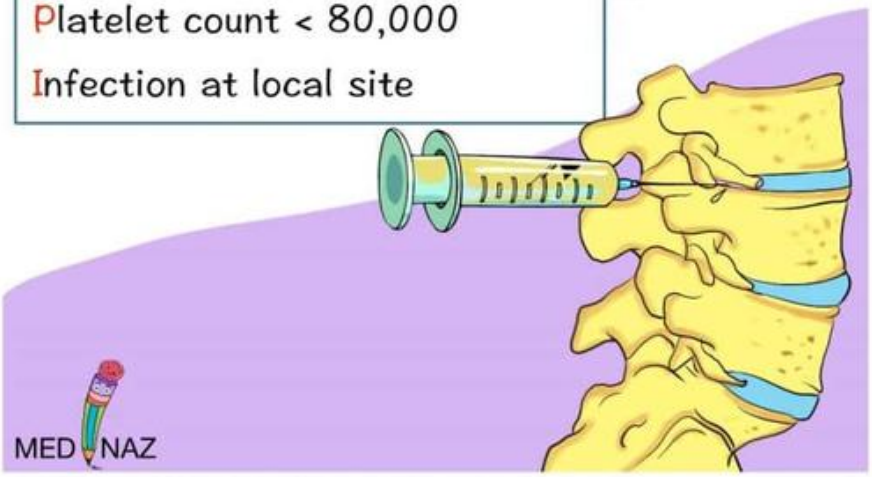
Contraindication of Spinal & Epidural anaesthesia

www.medinaz.com

S tenotic valvular heart disease
H ypovolemia
A nticoagulation therapy
R aised ICP
P latelet count < 80,000
I nfection at local site

"SHARP Injection"



Factors decreasing MAC

www.medinaz.com

H
- Hypoxia
- Hypercarbia
- Hypotension
- Hypothermia
- Hypothyroidism

E
- Electrolyte imbalance
  - Hyponatremia
  - Hypercalcemia
  - Hypermagnesemia

A
- Age
- Anemia
- Anesthetic agents (IV, Local, Opoids, Sedatives)
- Acute alcohol intake

T
- Trimester of pregnancy

"HEAT"

Contraindication to use of LA with Epinephrine

www.medinaz.com

Block of areas with end arteritis (e.g. Digital block)
Hypertension, Hyperthyroidism, with Halothane
Intravenous regional anaesthesia
Myocardial ischemia

"BHIM"

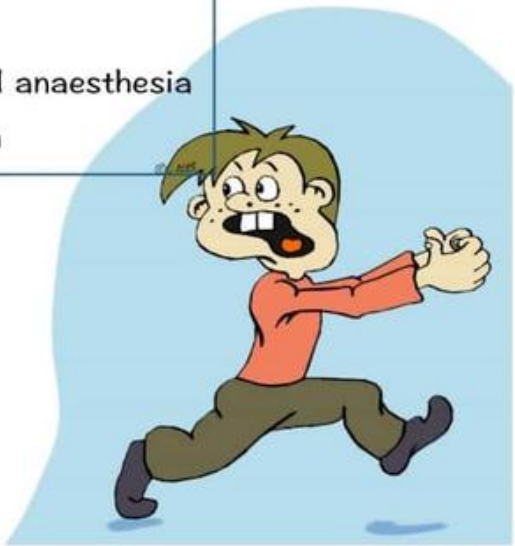
MED NAZ

Contraindication to use of LA with Epinephrine

www.medinaz.com

Block of areas with end arteritis (e.g. Digital block)
Hypertension, Hyperthyroidism, with Halothane
Intravenous regional anaesthesia
Myocardial ischemia

"Ban HIM"



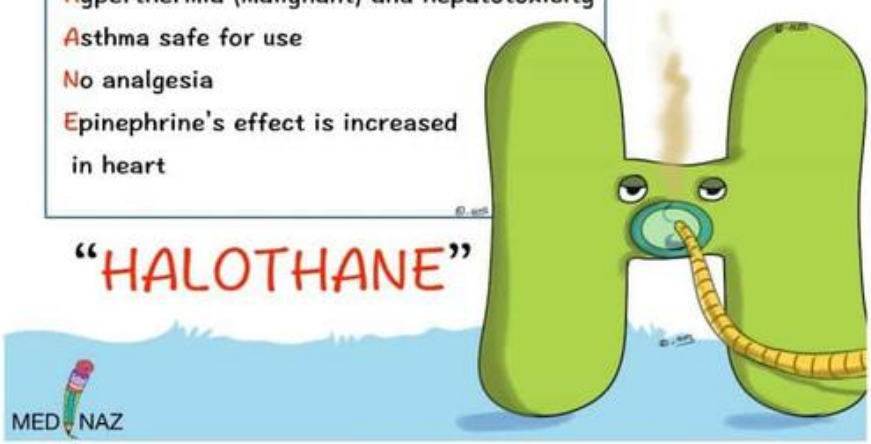
MED NAZ

MED NAZ

HALOTHANE

www.medinaz.com

High blood gas and lipid blood partition coefficient
Amber colored bottle for storage
Lowers blood pressure
Obstetric use as tocolytic in internal version & manual removal of placenta
Thymol used as preservative
Hyperthermia (malignant) and hepatotoxicity
Asthma safe for use
No analgesia
Epinephrine's effect is increased in heart

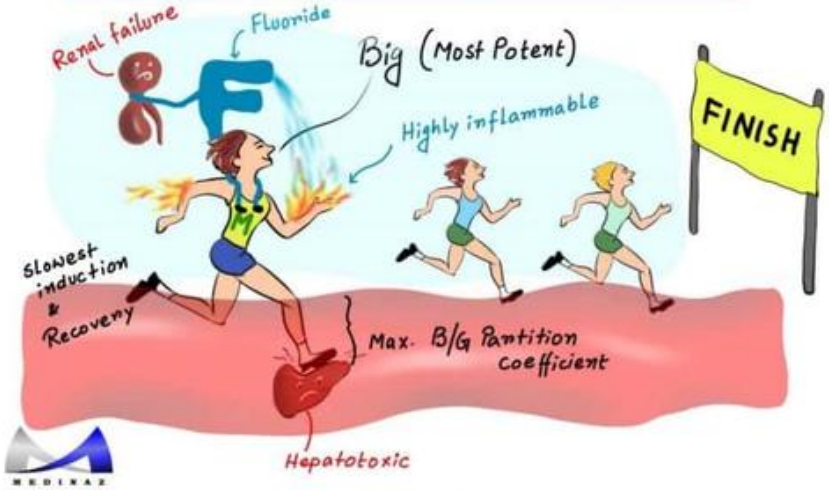


Methoxyflurane

www.medinaz.com

"METH"oxyflurane

Maximum potency, Maximum metabolized
Easily catches fire and hence combined with fluoride
Tubes soluble
Hepatotoxic, Highest B/G partition coefficient

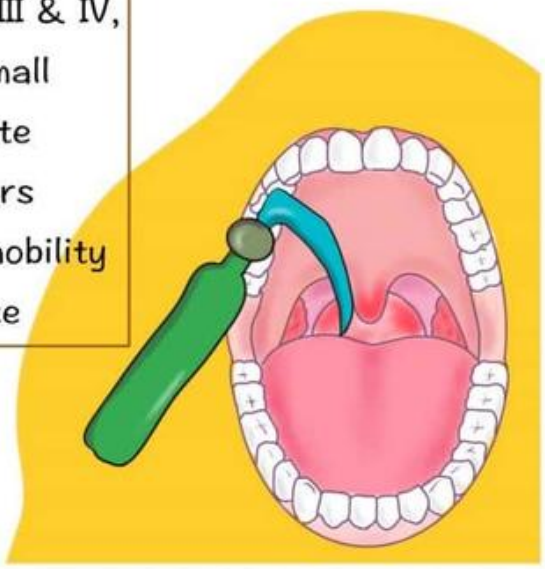


Indicator of difficult Laryngoscopy / Intubation

www.medinaz.com

S Short thyromental distance, short neck
M Mallampati class III & IV, mouth opening small
A Arched, high palate
L Long upper incisors
L Limited cervical mobility
P Prominent overbite

"SMALL Palate"



MED NAZ

M O R P H I N E

Can Cause "Pinpoint Pupil"

MED NAZ

Nasal Intubation indications

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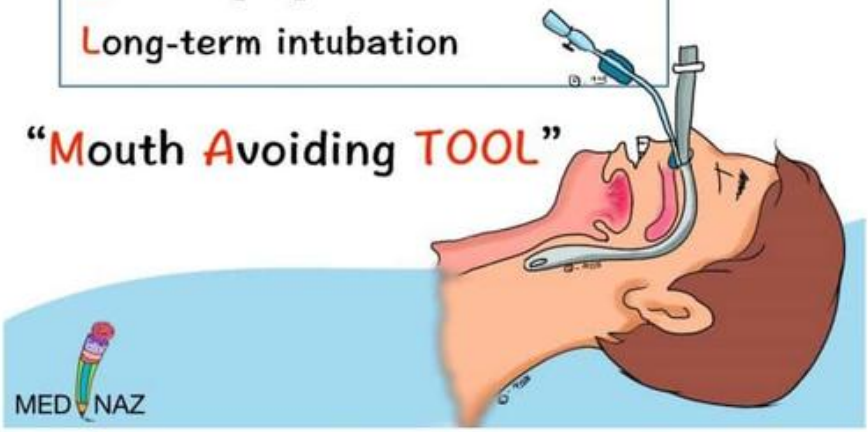
Mandibular fracture
Awake intubation
TMJ dysfunction
Obstructing mass in oral cavity
Oral surgery
Long-term intubation

"Mouth Avoiding TOOL"



COcaine

COnstricts blood vessels

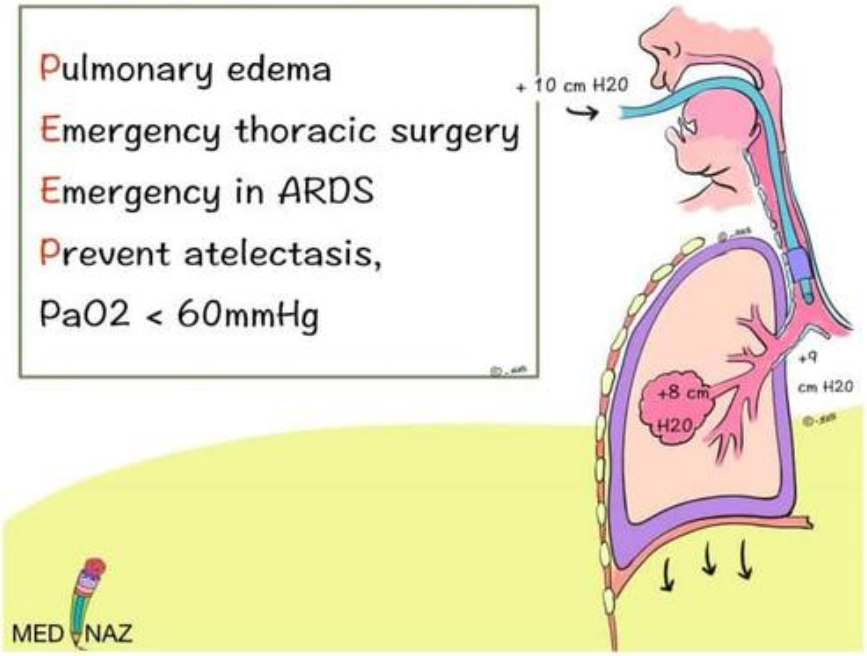
unlike other local anesthetics
which cause vasodilation

Positive End-Expiratory Pressure (PEEP) Uses

www.medinaz.com

"PEEP"

Pulmonary edema
Emergency thoracic surgery
Emergency in ARDS
Prevent atelectasis,
PaO2 < 60mmHg



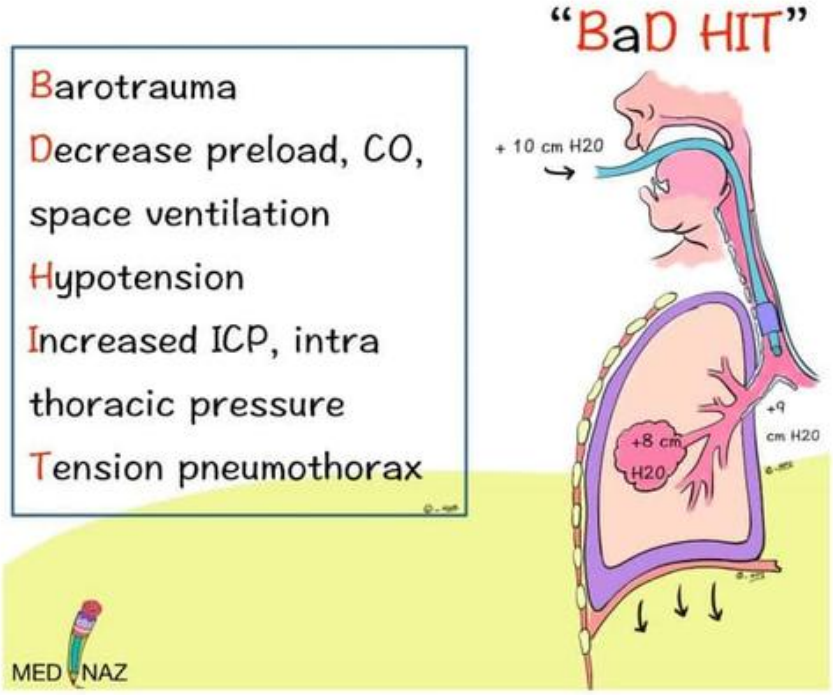
MEDINAZ

Positive End-Expiratory Pressure adverse effects

www.medinaz.com

"BaD HIT"

Barotrauma
Decrease preload, CO, space ventilation
Hypotension
Increased ICP, intra thoracic pressure
Tension pneumothorax



MEDINAZ

XENON

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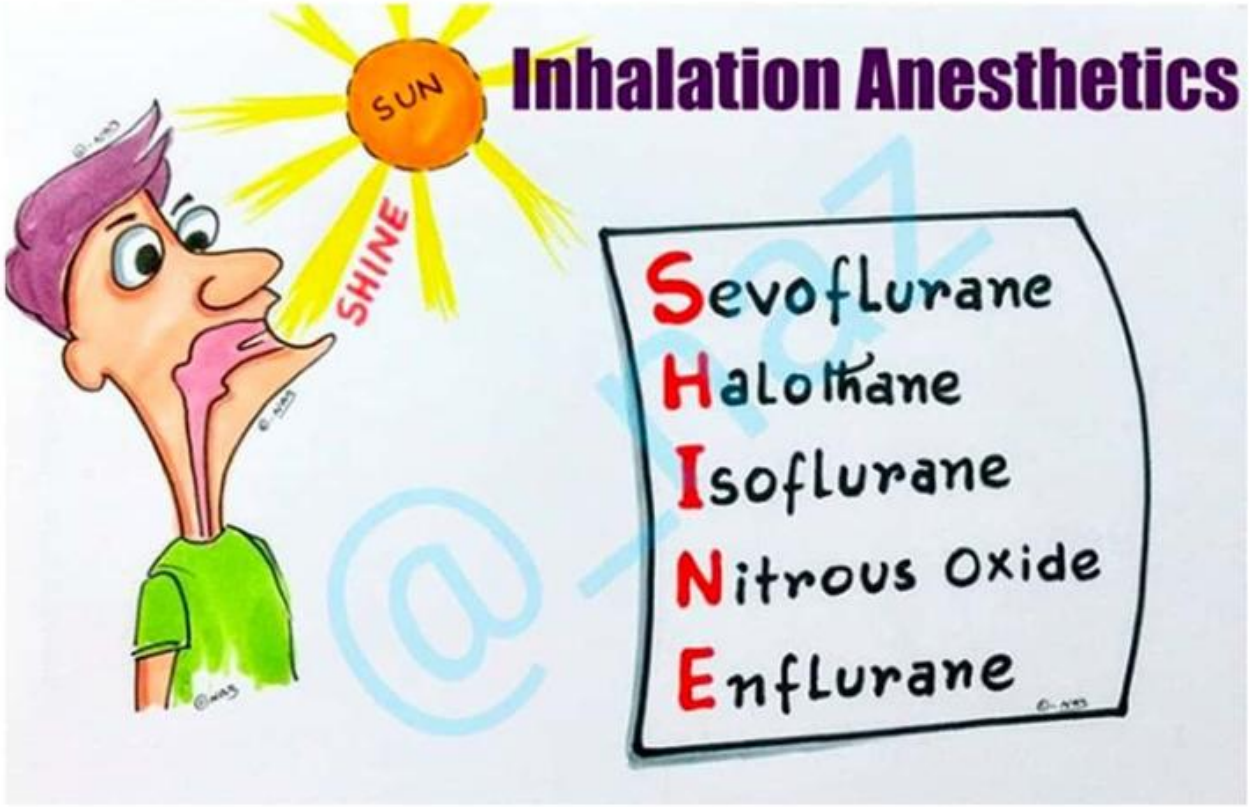
Xtremely safe agent
Elevated MAC(71), i.e. low potency
NMDA antagonist
Onset of anaesthesia is fastest, Oxygen carrier
Nausea & vomiting



Lidocaine Toxicity

M → Muscle twitching
- Tremors

A → Altered Central Nervous System
- Drowsiness
- Dizziness
- Restlessness
- Confusion
- Arrhythmias

S → Slurred or Difficult Speech
- Paresthesia
- Numbness of Lips/Tongue

S → Seizures
- Convulsions
- Respiratory depression
- Respiratory & Cardiac Arrest

HEMATOLOGY

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Contraindications to Fibrinolysis

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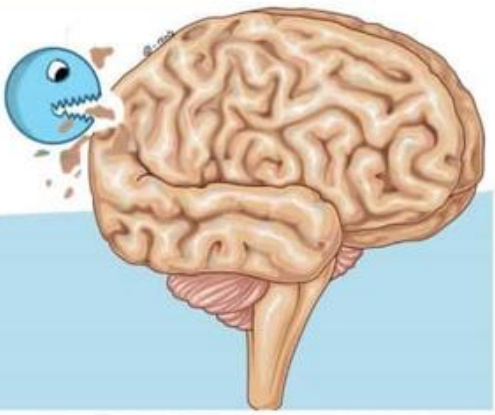
Brain tumor and aneurysms
Recent ischemic stroke & trauma
Aortic dissection
Intracranial haemorrhage
Noncompressible vascular punctures

"BRAIN"



MEDINAZ

Heparin side-effects & contraindications

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Side-effects

Alopecia
Hyperkalemia
Haemorrhage
Osteoporosis
Thrombocytopenia

Contraindications

Thrombocytopenia
Endocarditis
Alcoholics
Cirrhosis of liver
Hypertension
pEptic ulcer
Renal failure

"A HOT TEACHER"

Heparin

MEDINAZ

Megaloblastic Anemia causing Drugs

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- Methotrexate
- AZT = zidovudine
- Phenytoin
- Liver disease
- Ethanol

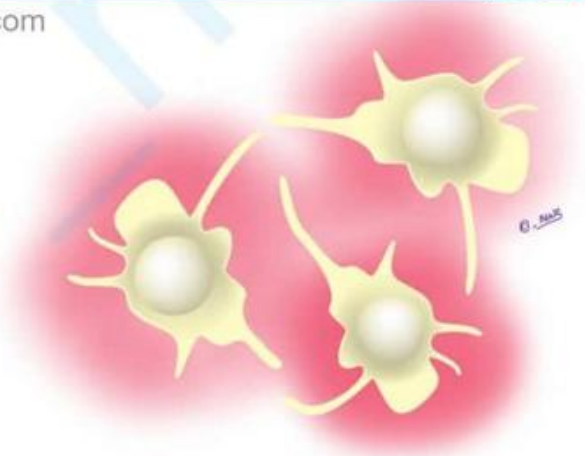
"MAPLE"

PGI_2 Vs THA_2

PGI_2 Inhibits platelet aggregation

TXA_2 is a potent platelet Aggregator

www.medinaz.com



Parenteral anti-coagulants

HEPARIN

ENOXAPRIN

ARGATROBAN

DALTEPARIN

Thrombolytic Agents

www.medinaz.com

Urokinase

Streptokinase

Alteplase (tPA)

"USA"

NSAIDS

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Aspirin Side-effects

www.medinaz.com

Allergy like reactions (Urticaria)
Susceptibility to bleeding
Peptic ulcer
Idiosyncratic reactions
Reye's syndrome
r**I**nging in ear (Tinnitus)
Nephropathy

"ASPIRIN"

NSAIDs Classification

Propionic acid derivatives
Pyrrole derivatives
Pyrazolone derivatives
Benzoxazocin derivatives
Salicylates
Oxicam derivatives
me**F**enamic acid derivatives
Indol derivatives
Aryl acetic acid &
Anthranilic acid derivatives

NSAIDs Contraindication

Bleeding
Asthma
Renal disease
Stomach (peptic ulcer)

NSAIDs

(Beneficial effects of inhibition of prostaglandin synthesis)

Analgesia
Antipyretic
Anti-inflammatory
Antithrombotic
Arteriosus
(Close patent ductus arteriosus)

GASTROINTESTINAL TRACT

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Aluminum hydroxide causes Constipation
Magnesium hydroxide causes Diarrhoea

Aluminum hydroxide
Aluminimum amount of feces

Magnesium hydroxide
Mg2+ = Must go to the bathroom.

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Hepatic Necrosis Causing Drugs

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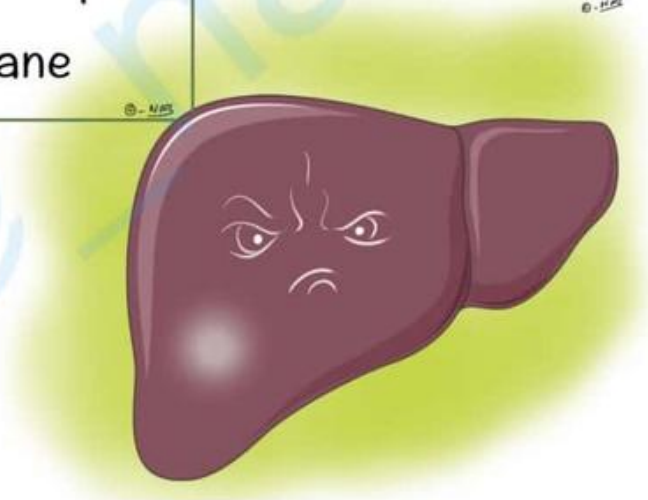
Valproic acid
Acetaminophen
Halothane

"Very Angry Hepatocytes"



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HMG-CoA reductase inhibitors

www.medinaz.com

Side-effects:

Hepatotoxicity

Myositis (rhabdomyolysis)

Contraindications:

Girl during pregnancy

Growing children

Interactions:

Coumarin

Cyclosporine

"HMG-CoA"

Misoprostol Vs Indomethacin

www.medinaz.com

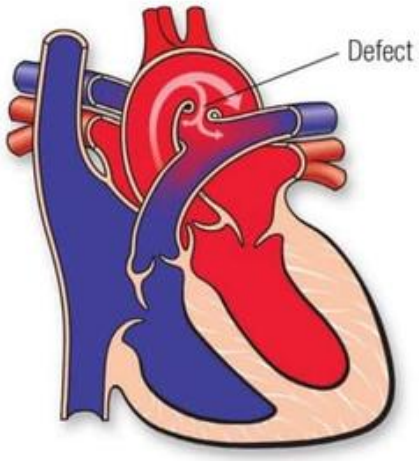
MisOprostol

Open PDA

Patent Ductus Arteriosus

IndomethaCin

Close PDA

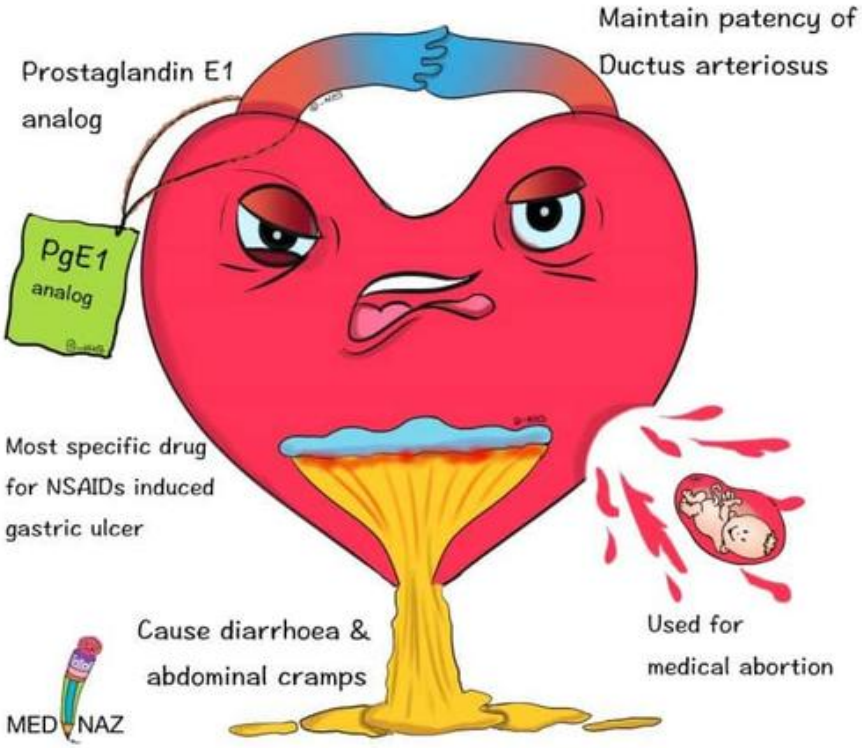


MED NAZ

MED NAZ

Misoprostol

www.medinaz.com



Misoprostol Pharmacology

www.medinaz.com

Mis O Pro Sto l

Miss carriage

↓

Contraindicated in women of childbearing potential (abortifacient)

O Open PDA

Protect stomach against NSAIDs

↓

PGE1 analog
Increase production and secretion of gastric mucous barrier,
Decrease acid production.

MED NAZ

Serotonin Syndrome

www.medinaz.com

"SHIVERS"

Shivering

Hyperreflexia + myoclonus

Increased temperature (> 41° C)

Vital signs instability

(HR↑, RR↑, BP↓)

Encephalopathy

Restlessness

Sweating

MED NAZ

AUTACOIDS AND IMMUNOMODULATORS

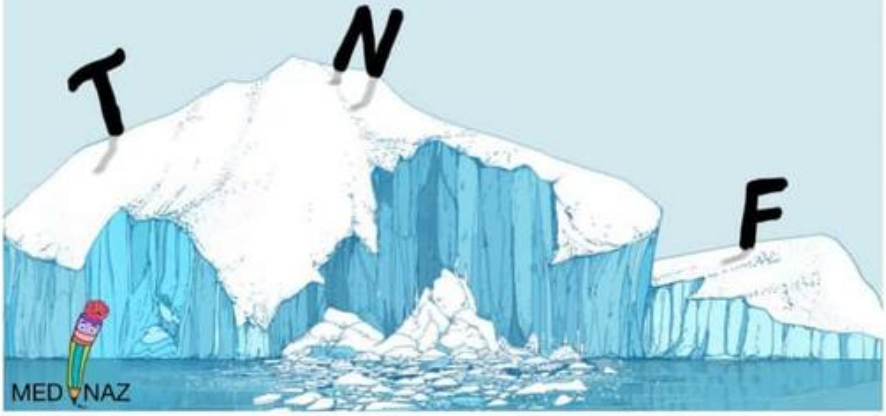
@NEETPGSURGEON

Anti-TNF drugs

www.medinaz.com

GoLimumab
Adalimumab
Certolizumab
Infiximab
EtaneRcept

"GLACIER"

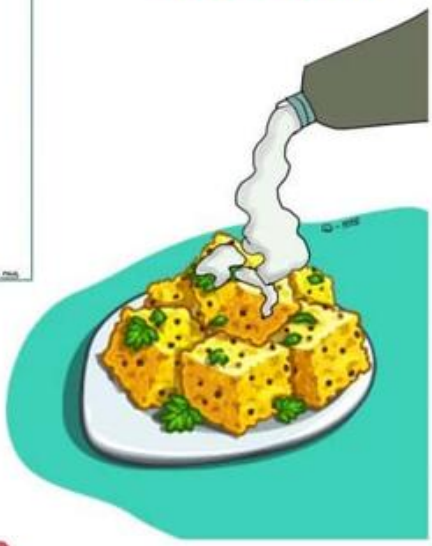


Antihistaminics given only by topical route

www.medinaz.com

Dibenzoxepins
Olpatidine
Ketotifen
Levocarbastine
Azelastine

"DOKLA"



MED NAZ

Antihistaminics

(Given only by topical route)

www.medinaz.com

- Ketotifen
- Levocarbastine
- Olpatidine
- Azelastine
- Dibenzoxepins

"Killing LOAD"

MEDINAZ

Uses of H1 Blockers (1st generation)
Based on Anti-cholinergic properties

- Parkinsonism
- Acute muscular dystonia
- Common cold
- Prophylaxis of motion sickness

www.medinaz.com

"Process Anti Cholinergic Properties"

MEDINAZ

HMG-CoA reductase inhibitors (statins):

side effects, contraindications, interactions

www.medinaz.com

Side effects:

Hepatotoxicity

Myositis [aka rhabdomyolysis]

Contraindications:

Girl during pregnancy/ Growing children

Interactions:

Coumarin/ Cyclosporine

"HMG-CoA"

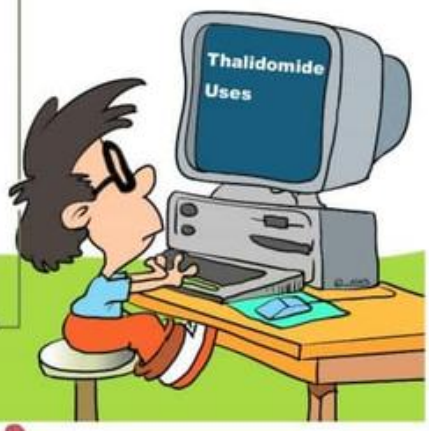
MEDINAZ

Thalidomide uses

www.medinaz.com

Sarcoidosis
CLL, Crowe Fukase syndrome
Pancreatic cancer, Pyoderma gangrenosum
Renal cell cancer
Oro-ocular genital syndrome (Bechet's disease)
GVHD
cRohn's disease
AIDS related aphthous ulcer & wasting
Multiple myeloma, Melanoma
Myelodysplasia
ENL

"Search Computer PROGRAMME"

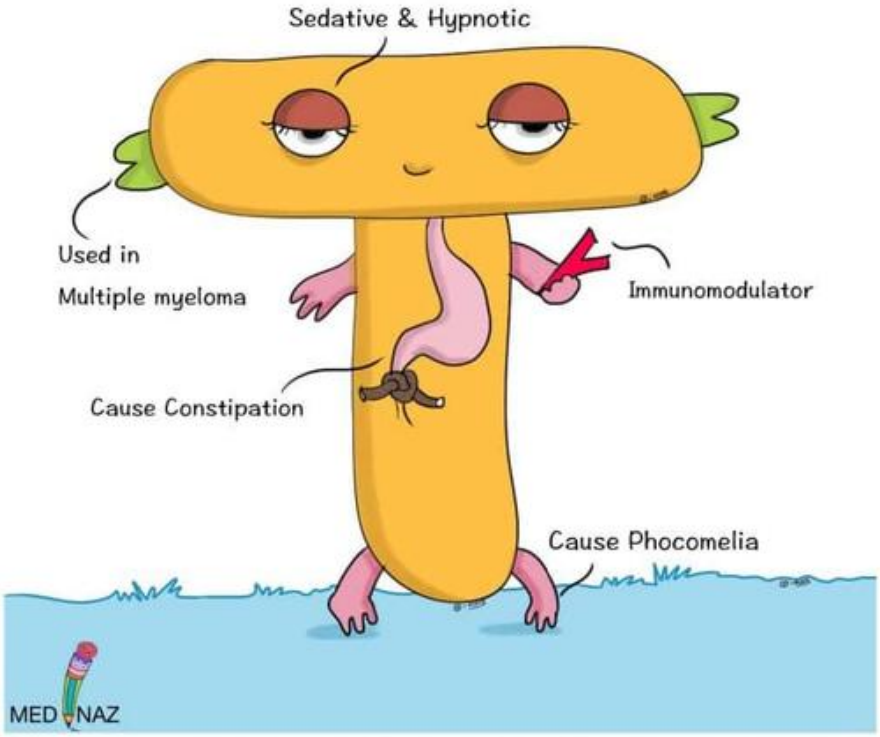


MEDINAZ

MEDINAZ

Thalidomide

www.medinaz.com



Thalidomide side-effects

www.medinaz.com

Sedation
PhOcomelia, Peripheral neuropathy
Rash
Thrombosis
Constipation

ANTIMICROBIAL AGENTS

@NEETPGSURGEON

Penicillinase resistant Penicillins

www.medinaz.com

"CONDOM"

Cloxacilin
Oxacillin
Nafcillin
Dicloxacillin
Oxacillin
Methicillin

naz_artonomy

Acid resistant Penicillin

www.medinaz.com

V = V- Penicillin
O = Oxacillin
D = Dicloxacillin
K = K(c)Loxacillin
A = Amoxycillin & Ampicillin

MED NAZ

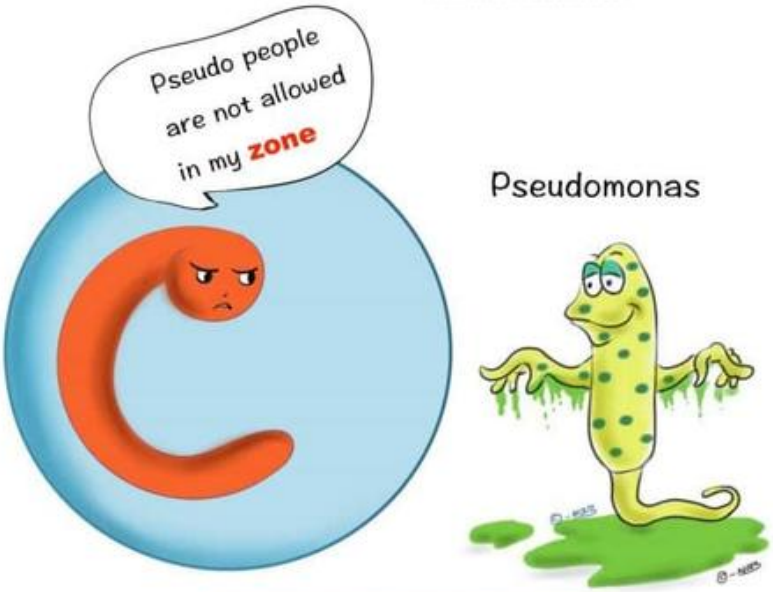
naz_artonomy

Anti-Pseudomonal Penicillin

Piperacillin
Ticarcillin
Carbenicillin

Cefoperazone

www.medinaz.com



Third generation Cephalosporin active against pseudomonas

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Cephalosporin Generations

1ST Generation

- Cefazoline — Caf
- Cefalexin
- Cefalothin
- Cefaloridine
- Cefadroxil

2ND Generation

- Cefuroxime — Me One Ten
- Cefoxitin
- Cefmetazole
- Cefomandole
- ex — Cefaclor

3RD Generation

- Cefoperazone
- Ceftriaxone
- Cefotaxime
- Ceftizoxime
- Cefpodoxime
- Ceftazidime
- Ceftibuten
- Cefexime
- Moxalactam

4th Generation

- Cefepime — Pi
- Cefpirome — no 'a'

5th Generation

- Ceftibiprole
- Ceftaroline — no 'a'

Amphotericin B Toxicities

www.medinaz.com

"AMPHoTEricin"

- Anemia
- Muscle spasm
- Phlebitis
- Headache, Hypotension, Hypokalemia
- Thrombocytopenia
- Emesis, Encephalopathy

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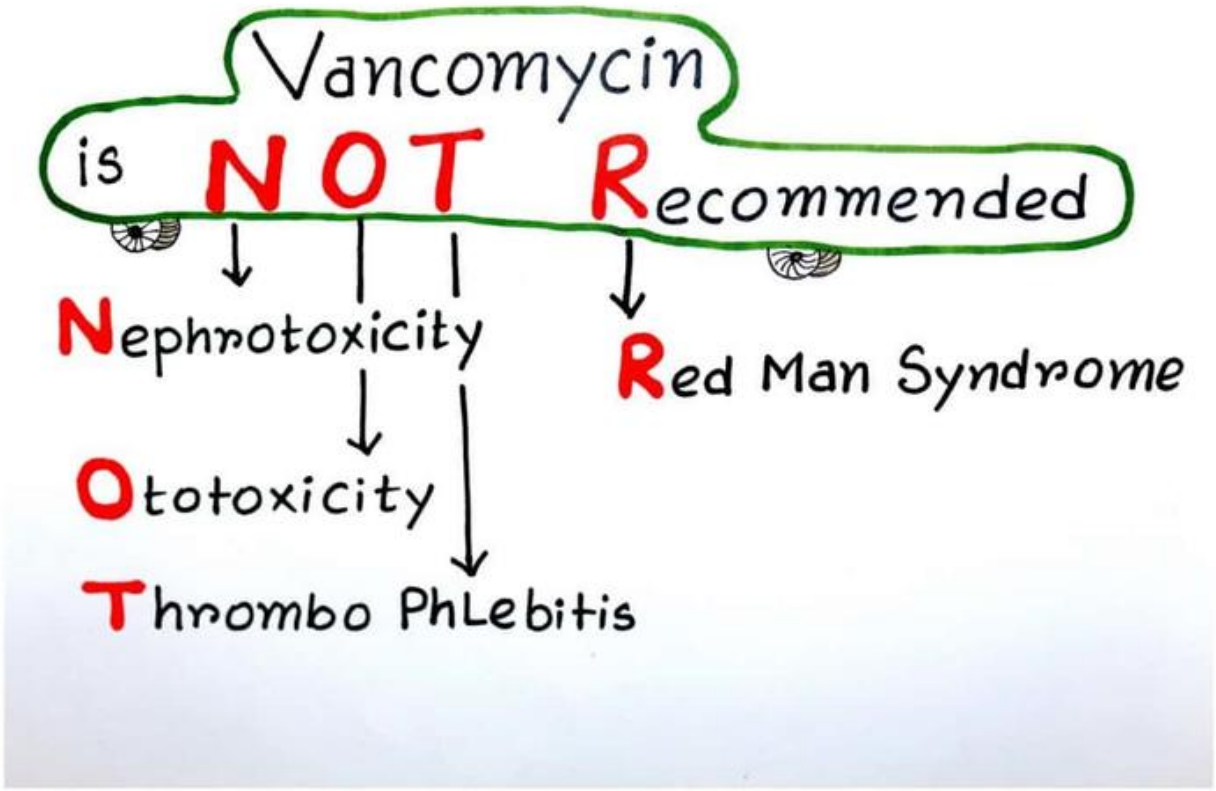


Quinolones side effects

The	Tendinitis
Good	GI discomfort
Clinical	Chelation of ions
Practice	Phototoxicity

@_naz

Doxycycline is DOC for..

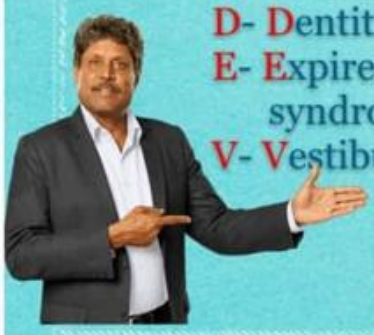
www.medinaz.com

Mycoplasma hominis (urogenital)
Plague prophylaxis
Rickettsia
Borrelia, **B**rucella
Chlamydia, **C**holera

TETRACYCLINE

Adverse Effects

K- Kidney failure (contraindicated)
A- Antianabolic effect
P- Photosensitivity
I- Insipidus (Diabetes)
L- Liver toxicity
D- Dentition and Bone defects
E- Expired drug can cause Fanconi's syndrome
V- Vestibular dysfunction

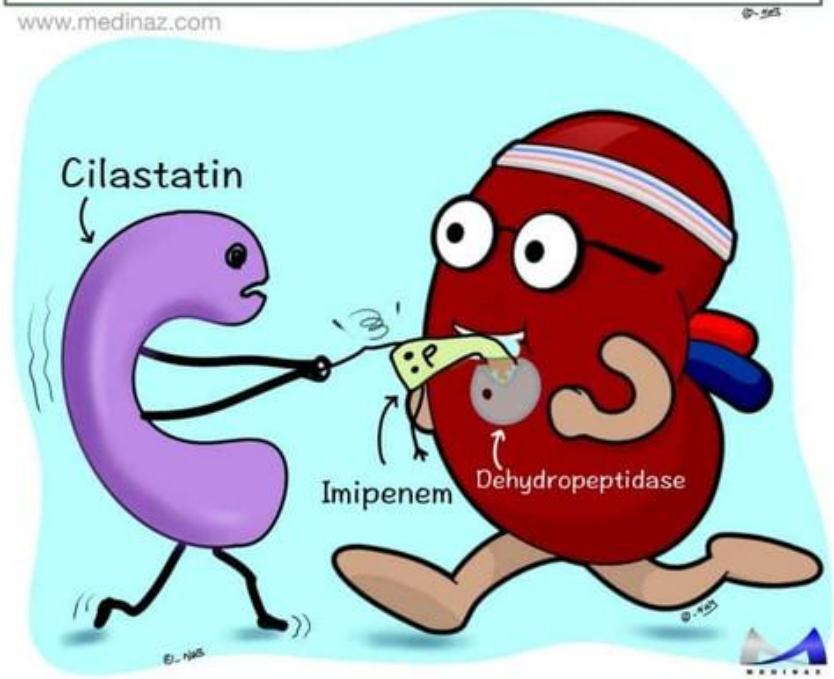


Chloroquine Uses

Malaria
Rheumatoid arthritis
Extra intestinal amoebiasis
DLE
Lepra reaction
Infectious mononucleosis
Photogenic reactions

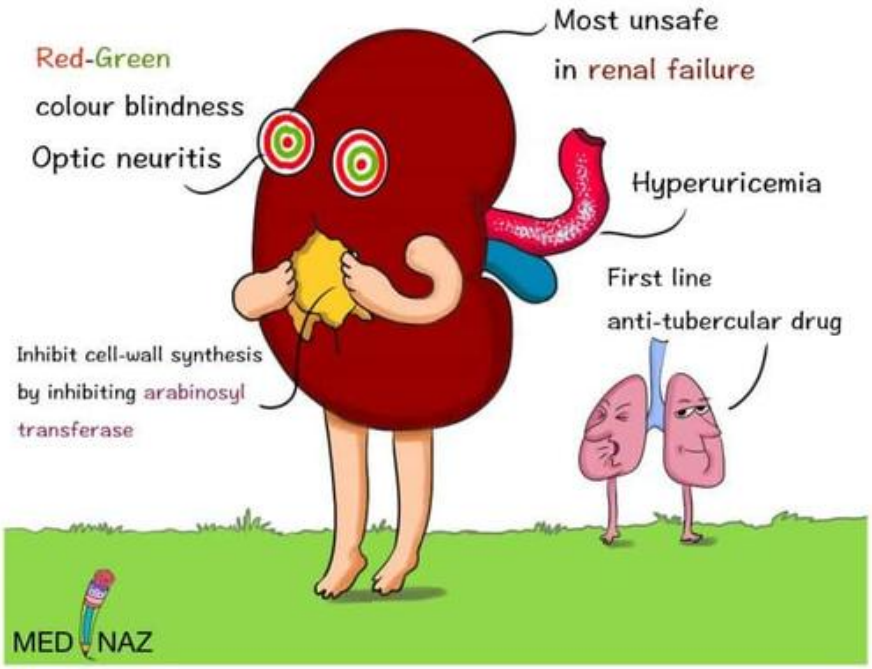
Combination of Cilastatin & Imipenem inhibits metabolism of Imipenem and increases it's effect

www.medinaz.com



Ethambutol

www.medinaz.com



Ethionamide side-effects

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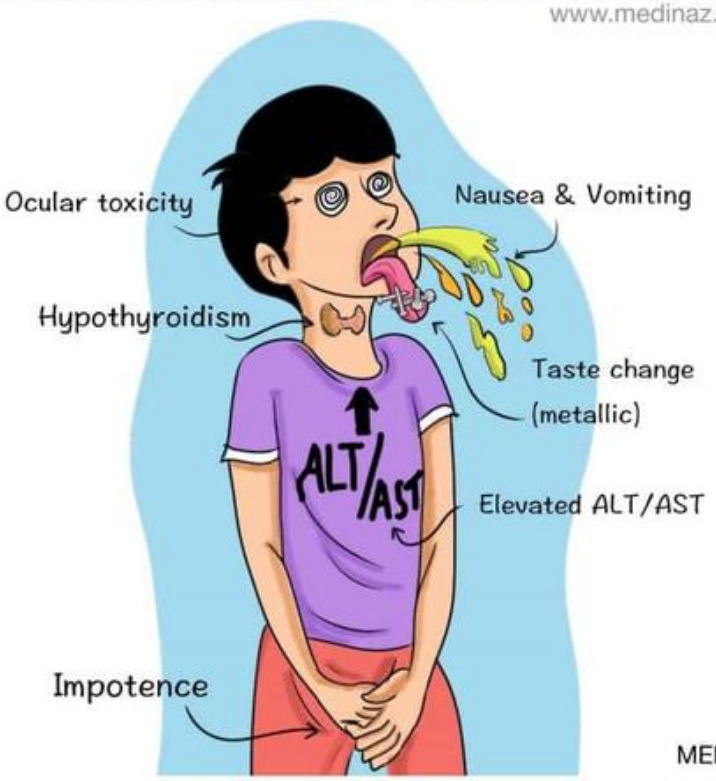

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Imipenem

www.medinaz.com

Imipenem is a broad-spectrum, β-lactamase-resistant carbapenem. Always administered with cilastatin (inhibitor of renal dehydropeptidase I) to decrease inactivation of drug in renal tubules.

©_NMS

Active against Gram ⊕ cocci, gram ⊖ rods, and anaerobes

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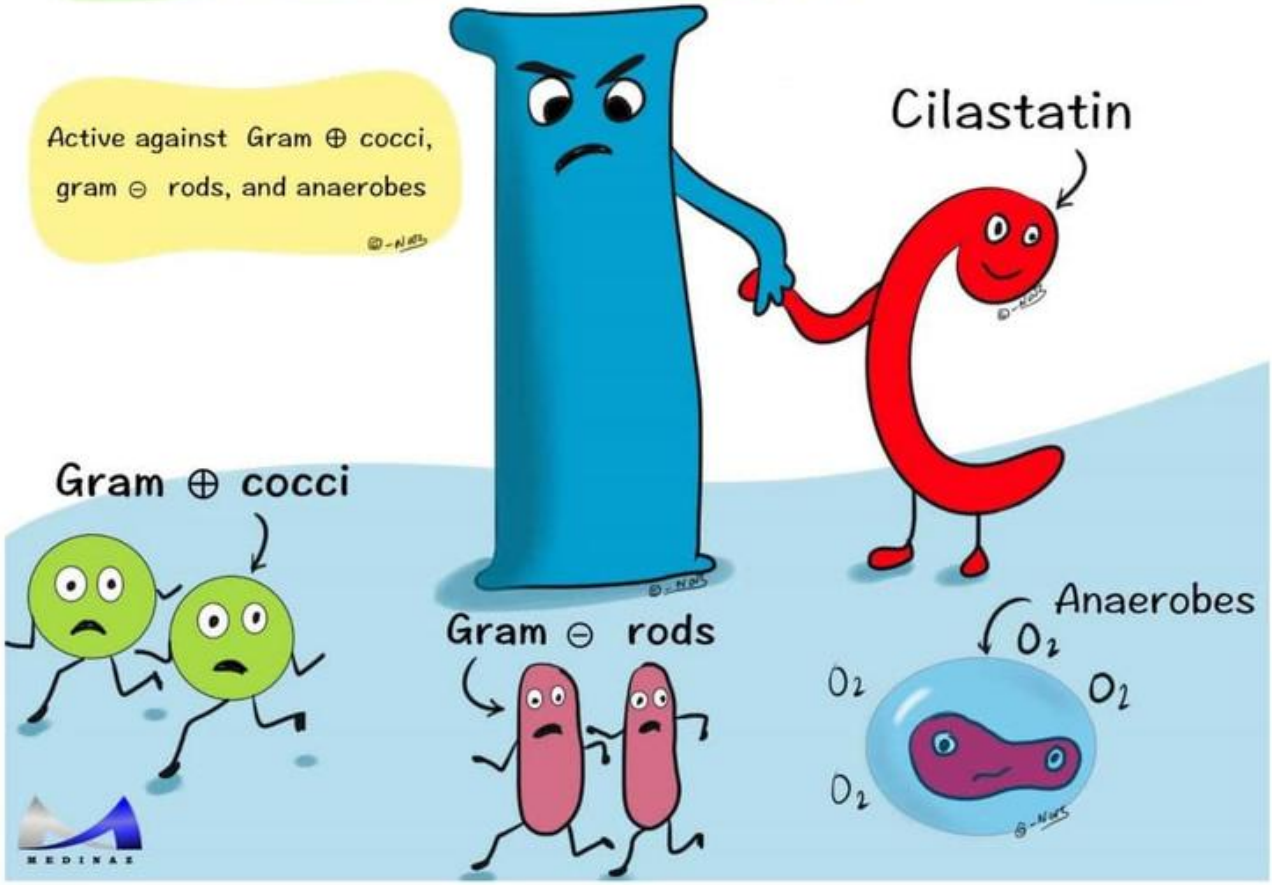


INH Side-effects

www.medinaz.com

"CHANGE"

Change in memory
Hepatotoxic, **H**allucinations
Anemia, **A**rthritis
Neuropathy
Gynecomastia
Euphoria, **E**pilepsy

INH Side effects

Inducer of Lupus
Inhibitor of cytochrome P450

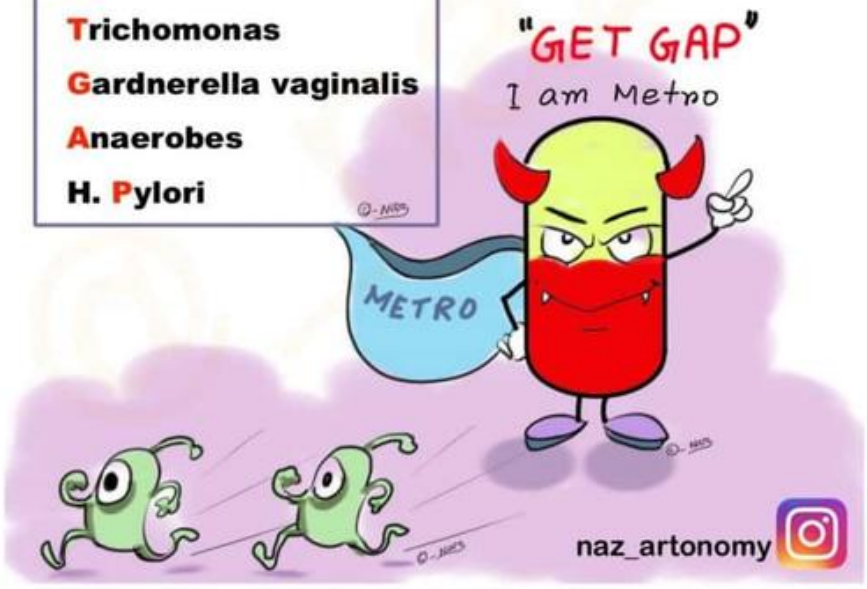
Neuropathy (peripheral)

Hepatotoxicity
Hemolysis in G6PD deficiency

METRONIDAZOLE

Clinical uses

Giardia
Entamoeba
Trichomonas
Gardnerella vaginalis
Anaerobes
H. **P**ylori



Antimicrobial drugs contraindicated

in Pregnancy

Sulfonamides
Aminoglycosides
Fluoroquinolones
Erythromycin
Metronidazole
Tetracyclines
Ribavirin
Griseofulvin
Chloramphenicol

NNRTI

www.medinaz.com

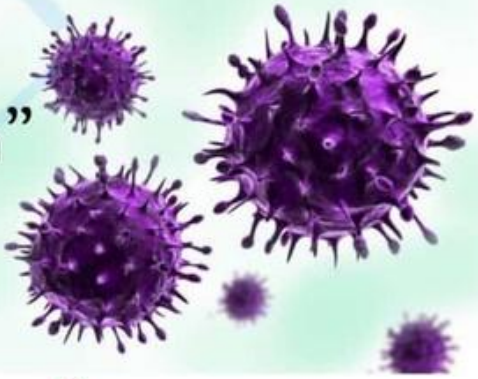
Nevirapine
Efavirenz
Etravirine
Delaviridine

"NEED"

Ribavirin Indications

RSV
Influenza B
Arenaviruses
(Lassa, Bolivian, etc)

"RIBAvirin"



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Red discolouration of urine

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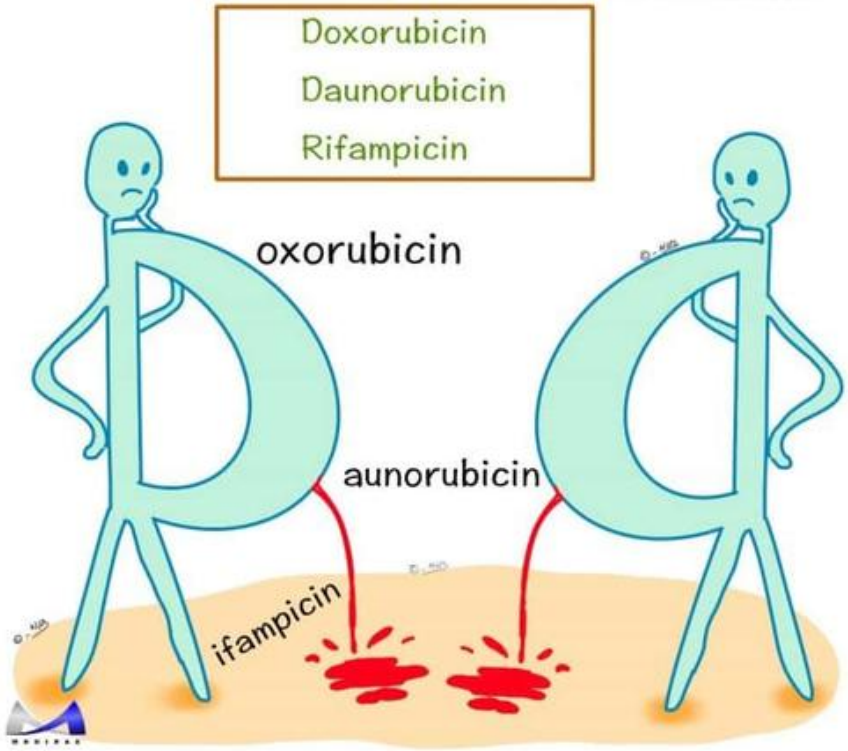
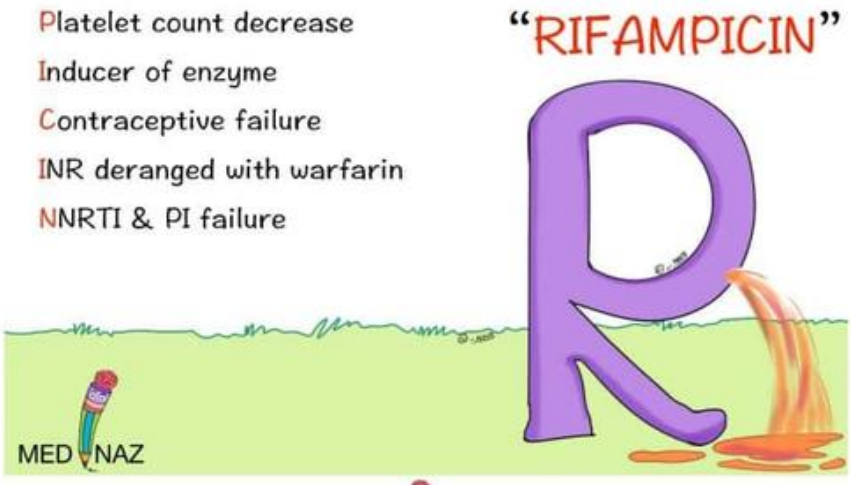


Rifampicin Important points

www.medinaz.com

RNA polymerase inhibitor,Reddish-orange discolouration
Interstitial nephritis
Flu like symptoms
Anemia
Maximum cidal & sterilizing effect
Platelet count decrease
Inducer of enzyme
Contraceptive failure
INR deranged with warfarin
NNRTI & PI failure



Macrolides

DOC for

C → Corynebacterium,Campylobacter
L → Legionella infection
A → Atypical Pneumonia
W → Whooping cough

Anti-retroviral drugs (fusion inhibitors)

Topical antifungals

www.medinaz.com

Butenafine
Halprogin
Undencyclenic acid
Tolnaftate, Terbinafine
Azoles
Nystatin, Naftifine

"BHUTAN"

MEDINAZ

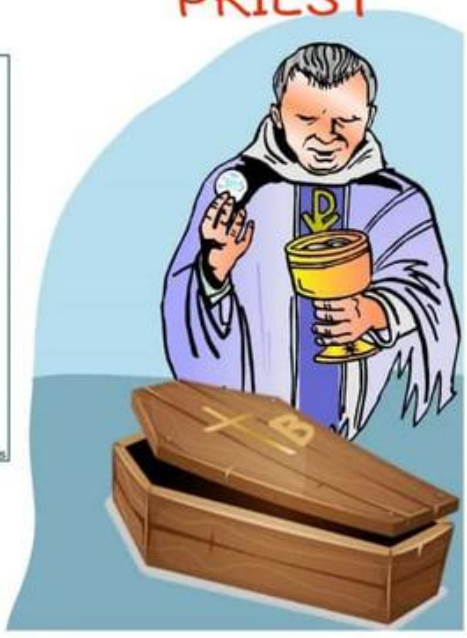
Tuberculosis: treatment

www.medinaz.com

"If you forget your TB drugs, you'll die and might need a PRIEST"

TB

Pyrazinamide
Rifampin
Isoniazid (INH)
Ethambutol
STreptomycin



MEDINAZ

CHEMOTHERAPEUTIC AGENTS

@NEETPGSURGEON

ALL regimen of choice

www.medinaz.com

Vincristine
Prednisolone
Asparginase
Daunorubicin

"VPAD"

CLL regimen of choice

Fludarabine
Cyclophosphamide
Rituximab

"FCR"

MEDINAZ

Anticancer drugs cause Cardiotoxicity

www.medinaz.com

5FU
(coronary vasospasm, precipitate ischemia)
Anthracyclines
(max with Doxorubicin & Donorubicin)
Trastuzumab
Cyclophosphamide at high dose

"FAT Cardio"

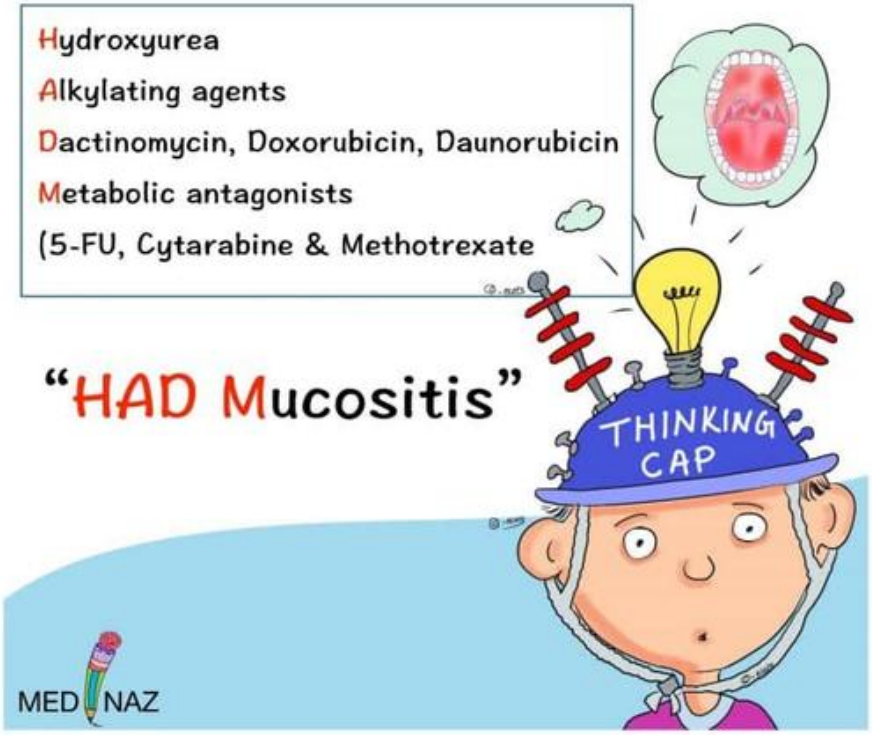
MEDINAZ

Anticancer drugs cause Mucositis

www.medinaz.com

Hydroxyurea
Alkylating agents
Dactinomycin, Doxorubicin, Daunorubicin
Metabolic antagonists
(5-FU, Cytarabine & Methotrexate

"HAD Mucositis"

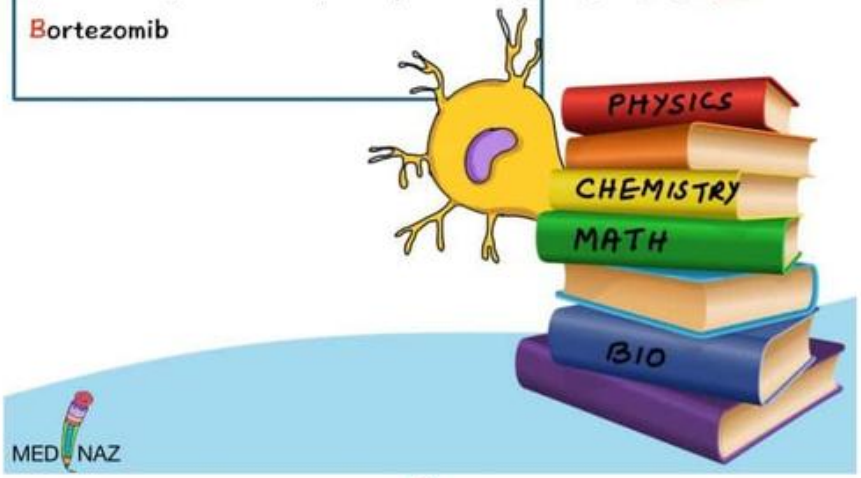


Anticancer drugs cause neuropathy

www.medinaz.com

Pyrimidine analogs
(Fludarabine & Nelarabine)
Cisplatin & Oxaliplatin
(sensory & motor)
M phase specific drugs
(vincristine, vinblastine, Nab paclitaxel)
Bortezomib

"PCMB"



Anticancer drugs cause Radiation Recall Syndrome

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Dactinomycin
Doxorubicin
Daunorubicin

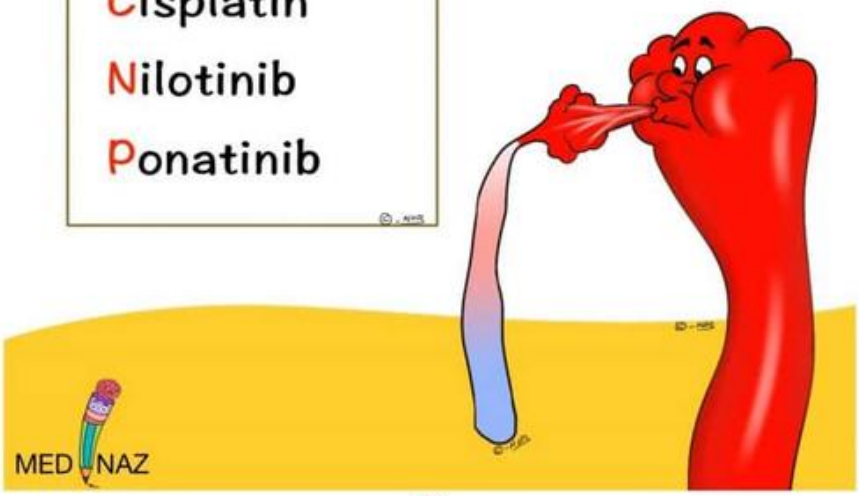
"D"

Anticancer drugs cause Raynaud's disease

www.medinaz.com

Bleomycin
Vinblastine
Cisplatin
Nilotinib
Ponatinib

"Blood Vessels Can Not Pass blood"



Chemotoxicities

CISPLATIN/CARBOPLATIN

C Ototoxicity & Nephrotoxicity

METHOTREXATE

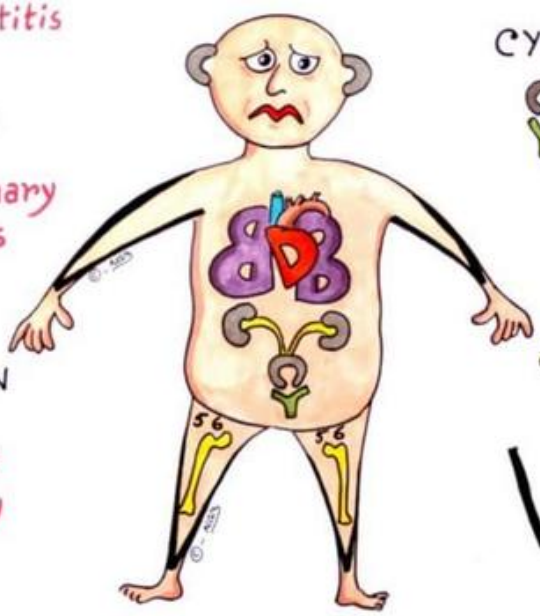
M Stomatitis

CYCLOPHOSPHAMIDE

Y Hemorrhagic Cystitis

BLEOMYCIN

B Pulmonary Fibrosis



5-FU
6-MP
> Myelosuppression

DOXORUBICIN

D Cardiac toxicity

VINCRISTINE

V Peripheral Neuropathy

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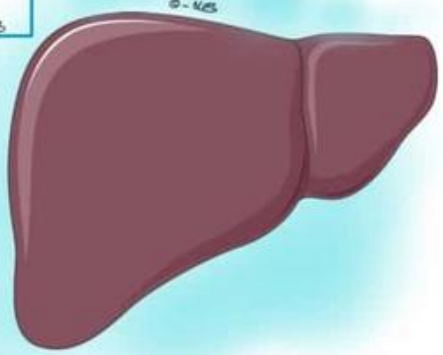
Cyclosporine Side-effects

www.medinaz.com

"4 H"

Hirsutism
Hyperplasia of gums
Hypertension
Hepatotoxicity



Disease modifying Anti-Rheumatoid Drugs (DMARDS)

www.medinaz.com

Golimumab, Gold compounds
Etarnacept
Tofacitinib, Tocilizumab
Sulfasalazine
Methotrexate, minocycline
Abatacept, Azathioprine
Leflunamide
Cyclophosphamide, cyclosporine
Hydroxychloroquine
Anakinra, Adalimumab
Infliximab
Rituximab

"GET SMALL CHAIR"

MED NAZ

Doxorubicin & Donorubicin

www.medinaz.com

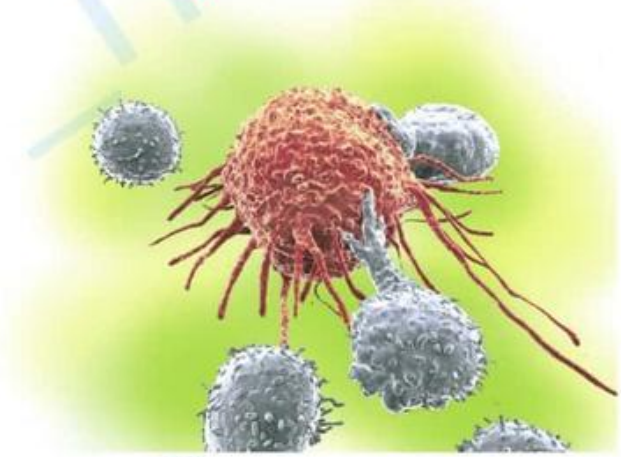
Anticancer drugs cause maximum Cardiotoxicity
Doxorubicin & Donorubicin

EGFR Antagonists

www.medinaz.com

"EGFR"

Erlotinib Geftinib



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ETOPOSIDE

www.medinaz.com

Action:
Inhibits TOPoisomerase II

Indications:
Testicular carcinoma
Ota cell carcinoma of lung
Prostate carcinoma

Side-effects:
Affects TOP of your head, cause alopecia

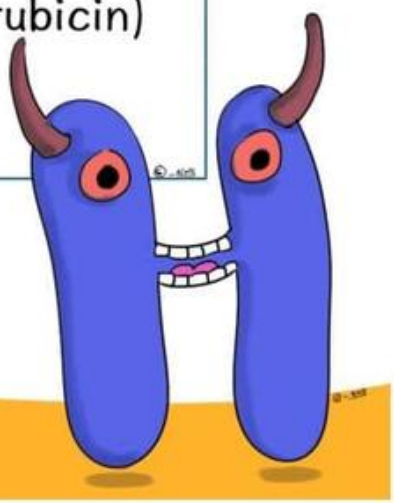
"eTOPoside"

Hodgkin's disease regimen of choice

www.medinaz.com

Vincristine
Bleomycin
Adriamycin (doxorubicin)
Dacarbazine

"Very BAD"



MED NAZ

Hydroxyurea uses

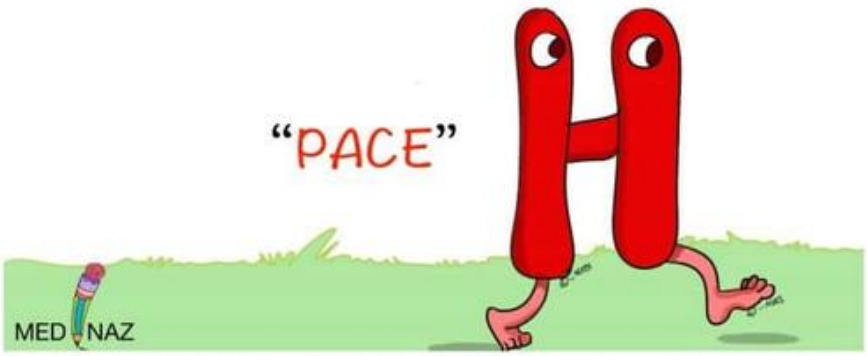
www.medinaz.com

PCV

Anemia (sickle cell)

CML

Essential thrombocytosis



L-Asparginase Side-effects

www.medinaz.com

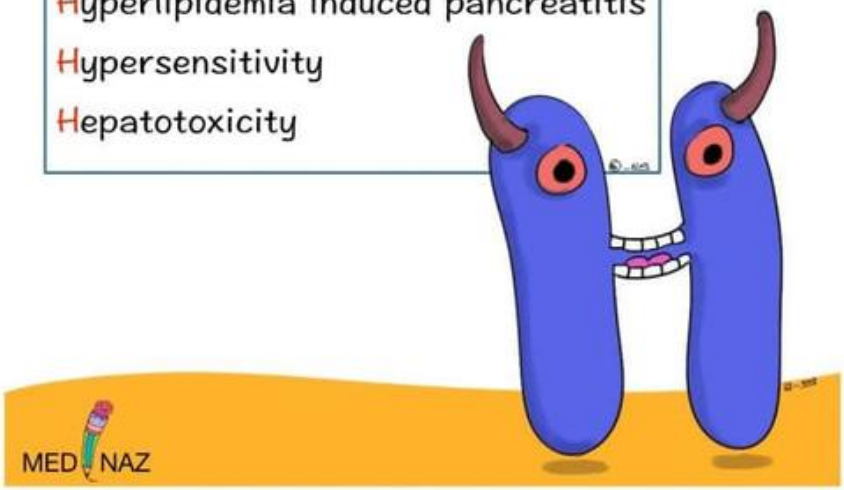
Hyperglycaemia

Haemorrhage or thrombosis

Hyperlipidemia induced pancreatitis

Hypersensitivity

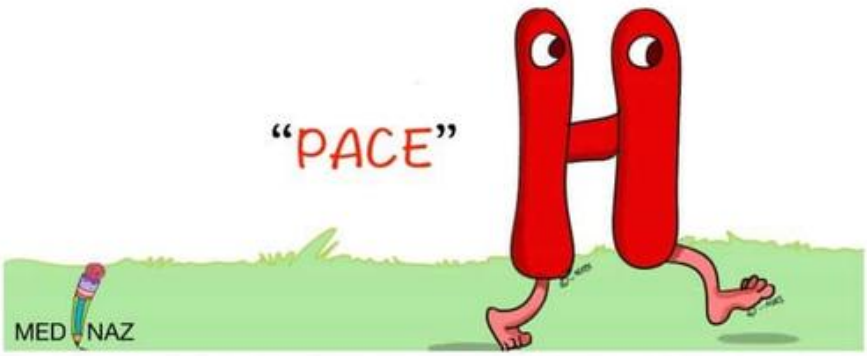
Hepatotoxicity



Hydroxyurea uses

www.medinaz.com

PCV
Anemia (sickle cell)
CML
Essential thrombocytosis



L-Asparginase Side-effects

www.medinaz.com

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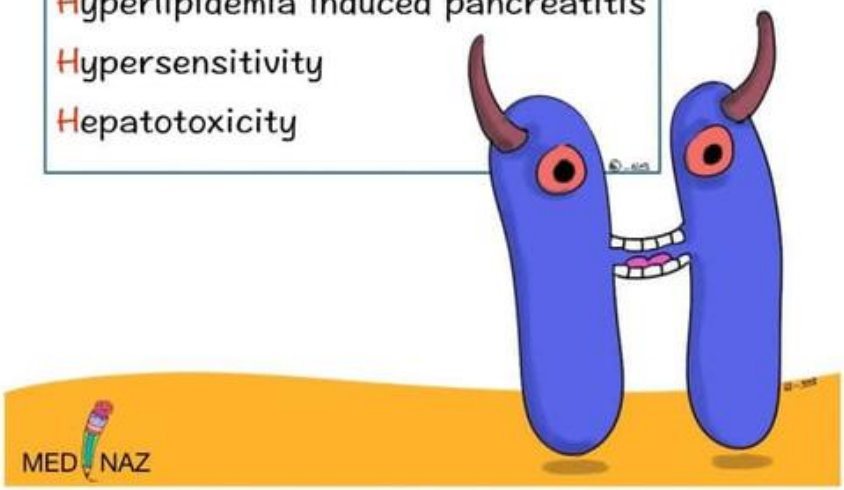
Hepatotoxicity



Methotrexate use

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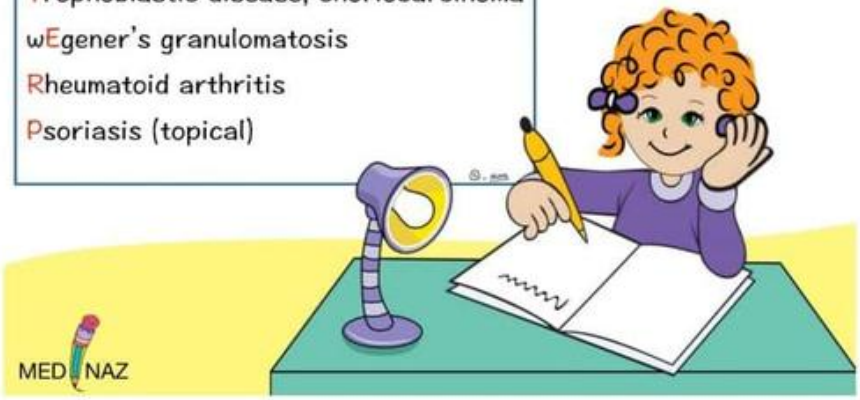
Osteosarcoma
Crohn's disease
Transplant rejection (GVHD)
ALL
Multiple sclerosis
Ectopic pregnancy
Trophoblastic disease, choriocarcinoma
wEgener's granulomatosis
Rheumatoid arthritis
Psoriasis (topical)

"OCTAMETER in Poetry"



Non-Hodgkin's lymphoma treatment of choice for High/Intermediate grade

www.medinaz.com

Cyclophosphamide
Hydroxy-doxorubicin
Oncovin (vincristine)
Prednisolone
Rituximab

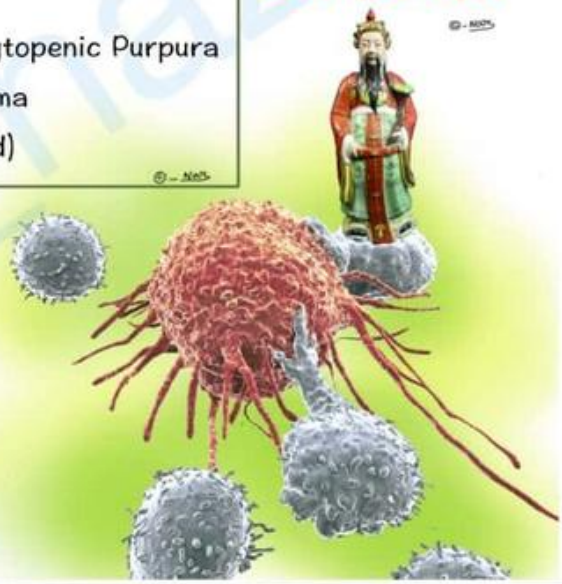
"CHOP-R"

Rituximab Uses

www.medinaz.com

CLL
Haemolytic anemia
Idiopathic Thrombocytopenic Purpura
Non-Hodgkin Lymphoma
Arthritis (Rheumatoid)

"CHINA"



Therapeutic use of Interferons

Interferon Alpha → Viruses — HBV,HCV,HHV-8,HTLV-2

Interferon Beta → Multiple Sclerosis

Interferon Gamma → Granulomatous disease (Chronic)

ENDOCRINE SYSTEM

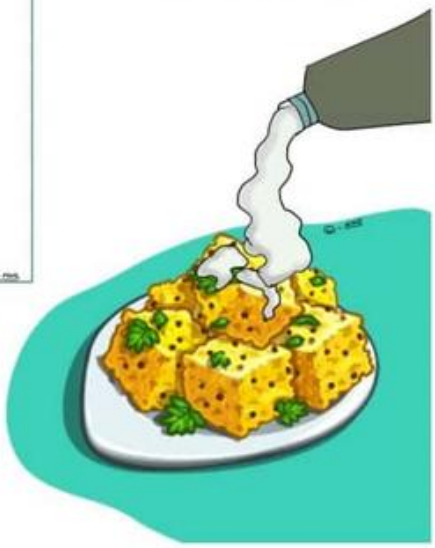
@NEETPGSURGEON

Antihistaminics given only by topical route

www.medinaz.com

Dibenzoxepins
Olpatidine
Ketotifen
Levocarbastine
Azelastine

"DOKLA"



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Drugs used in Erectile dysfunction

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Phentolamine
Bremelanotide
Naltrexone
Ketanserine
Sildenafil (DOC)
Alviptadil
Trazadone
Alprostadil

"Pyar Bhi Nahi Kar SAKTA"

MED NAZ

Side effects of iodides

www.medinaz.com

Idiosyncratic reaction (TTP, Periarteritis nodosa)
Oropharyngeal glands inflammation (Mimic mumps)
Dysgeusia
Iodism (Head cold – Headache)
Dermatological (Acneform rashes)
Edema of lungs and larynx (Angioedema)

"IODIDE"

MED NAZ

Side effects of steroids

www.medinaz.com

Hyperglycemia, Hypokalemia, Hypertension
mYopathy
Disturbed mood [psychosis]
Retardation of growth
Osteoporosis
Cushing syndrome , cataract ,
Osteonecrosis
Redistribution of fat
Topical steroid – Glaucoma, teleangectasia
Infections, inflammation of follicles
Skin atrophy

"HYDRACORTIS"

MED NAZ

MISCELLANEOUS

@NEETPGSURGEON

Drugs causing Stevens-Johnson Syndrome

Lame ESCAPE PLan

Lame = Lamotrigine
= Erythromycin
= Sulfa drugs
= Carbamazepine
= Allopurinol
= Penicillin
= Erythromycin
PLan = Phenobarbital

ADVANTAGES OF CALCIUM HYDROXIDE

Police PH is high,acts as an acid neutraliser
Inspector Internal resorption preventing agent
Having Healing promoting agent
B **Bactericidal**
R Repair promoting agent
I **Inexpensive**
B **Bacteriostatic**
E **Easy to use**

Drugs used in Rehabilitation of Alcoholism

www.medinaz.com

Acamprosate

Naltrexone

Disulfiram

ANTIGOUT DRUGS

Colchicine
Allopurinol
Probenecid
Sulfinpyrazone

"CAPS"

Copper Poisoning Treatment

www.medinaz.com

Penicillamine

"Copper penny"

Cutaneous Flushing causing Drugs

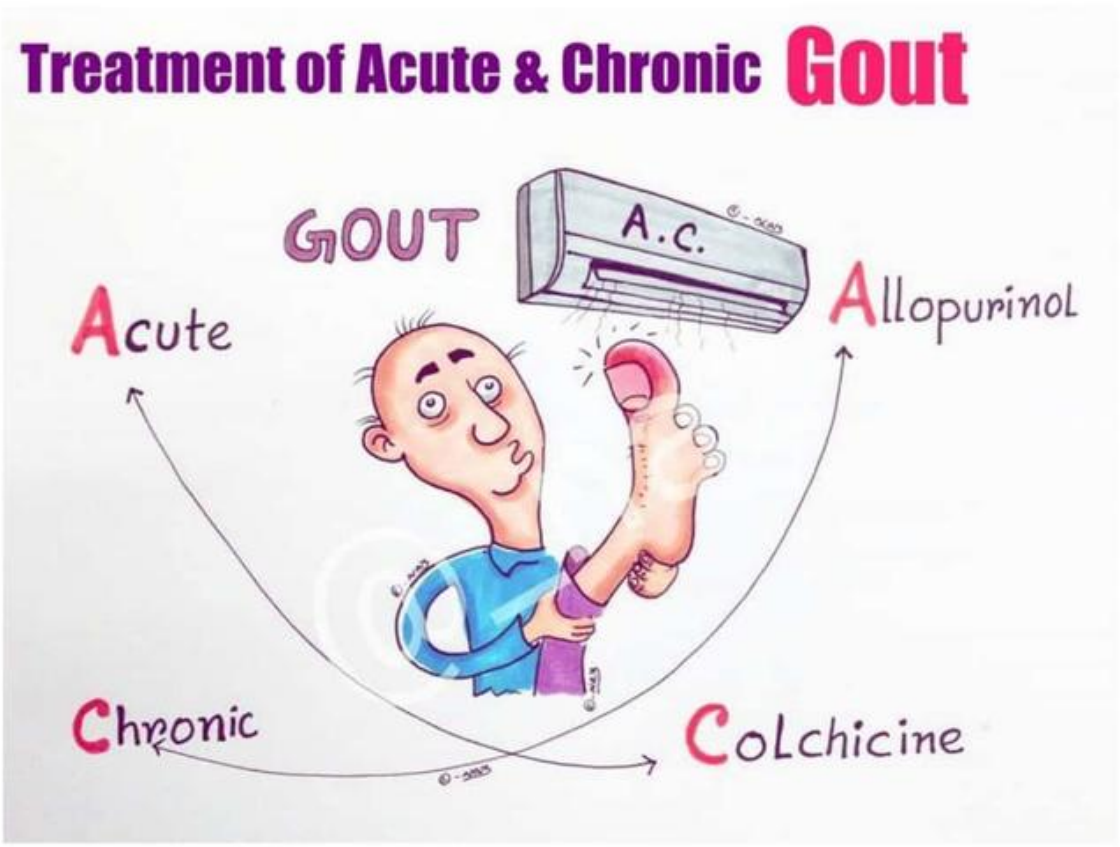
www.medinaz.com

Vancomycin
Adenosine
Niacin
Ca 2+ channel blockers,

"VANC"

*Echinocandins, Nitrates also

Treatment of Acute & Chronic Gout



Drugs Causing Hyperuricemia

www.medinaz.com

L-Dopa
Ethambutol
Aspirin
Diuretic
Cyclosporine
Alcohol
Nicotinic acid
Pyrazinamide

"LEAD CAN Poison"

Iron Overload Treatment

www.medinaz.com

Iron (Fe)

Deferoxamine
Deferasirox
Deferiprone

Mercury Poisoning Treatment

www.medinaz.com

Mercury

Dimercaprol
Succimer

@_naz

Narcotics Side-effects

www.medinaz.com

Synergistic CNS depression with other drugs
Constipation
Respiratory depression
Addiction
Miosis

"SCReAM if you see a drug dealer"

Drugs used for
Overactive bladder

Solefenacin
Oxybutynin
Flavoxate, Fesoterodine
Tolterodine, Trospium
Darifenacin

"SOFT BLaDar"

GYNECOMASTIA CAUSING DRUGS

Kool = **K**etoconazole

D = **D**igoxin

I = **I**soniazid

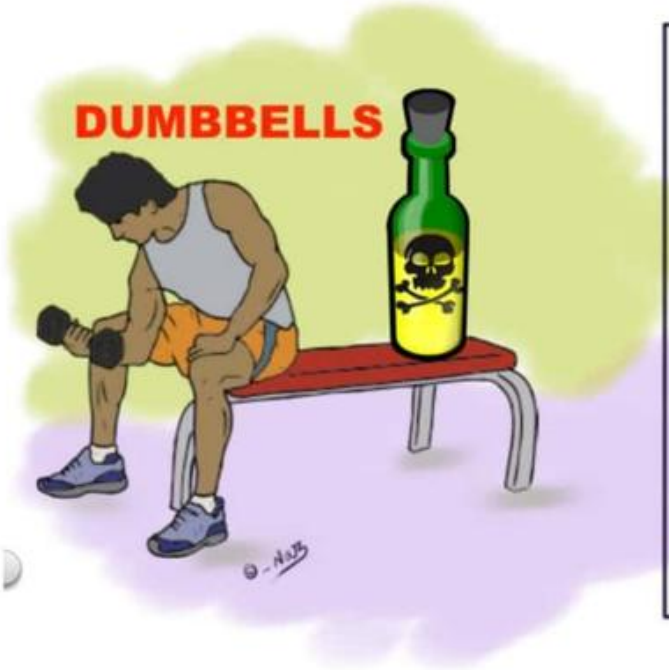
S = **S**pironolactone

C = **C**imetidine

O = **O**estrogens

S = **S**tilboestrol

Signs of Organophosphate Poisoning



Diarrhoea

Urination

Miosis

Bradycardia

Bronchospasm

Emesis

Lacrimation

Salivation

Uterine Relaxants (Tocolytics)

It's → **Indomethacin**
Not → **Nifedipine**
My → **Magnesium Sulfate**
Time → **Terbutaline**

ANTIBIOTICS EXTRA MNEMONICS

Organisms not covered by 1st-4th gen Cephalosporins

- Organisms typically not covered by 1st–4th generation cephalosporins are Listeria, Atypicals (Chlamydia, Mycoplasma), MRSA, and Enterococci (treated by ceftaroline) .

"LAME"

Listeria
Atypicals (Chlamydia, Mycoplasma),
MRSA
Enterococci

30S inhibitors

Aminoglycosides, Tetracyclines

50S inhibitors

Chloramphenicol, Clindamycin Erythromycin (macrolides) Linezolid

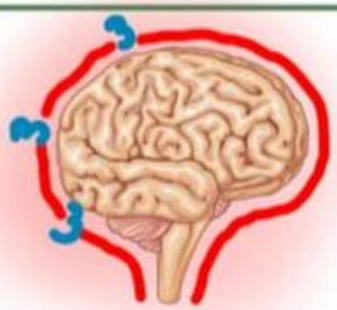
"Buy AT 30,
CCEL (sell) at 50."

3rd & 5th generation Cephalosporins

- 3 rd generation cephalosporin can cross blood-brain barrier (BBB)

BBB = 3 letters

3rd generation



- 5 th generation cephalosporins are useful against MRSA
- Most nephrotoxic – Cephaloridine

CephaloRIdine = Renal Impairment

Aminoglycoside side-effects

Nephrotoxicity
Neuromuscular blockade,
Ototoxicity
Teratogen

"NOT"

Tetracycline uses

T
E } TETracyclines
T

R – Rickettsia, Relapsing fever

A – Atypical pneumonia

C – Cholera

Y – LYme's disease

C – Chlamydia

L – LGV

I
N } INguinale (granuloma)

E – Epidemics of plague

- Azithromycin is DOC for Mycoplasma pneumoniae and genitalium, Campylobacter, Legionella and Chancroid

"CALM down Azithro is coming"

C - Campylobacter, Chancroid

A - Azithromycin

L - Legionella

M - Mycoplasma pneumoniae and genitalium

Clindamycin vs Metronidazole

- Clindamycin treats anaerobic infections above the diaphragm and metronidazole treats anaerobic infections below diaphragm.

Biofilm mechanism of resistance to Antibiotics

- Biofilm mechanism of resistance to antibiotics includes –

Mechanical barrier (exopolysaccharide matrix)

Growth rate decreased

Persisters: Bacteria undergoes phenotypic modification into dormant, spore like structures and survive antibiotic insult

Efflux pump which pump the drug out of the biofilm

Enzymatic inactivation

Auditory toxicity is cause by

- Auditory toxicity is caused by – Kanamycin, Amikacin, Neomycin

Kanamycin
Amikacin
Neomycin

K
A
N

Second line anti tubercular drugs

Second line antitubercular drugs
Two = Thioacetazone
P = PAS
E = Ethionamide
A = Amikacin
C = Caperomycin, Calithromycin
O = Ofloxacin
C = Ciprofloxacin, Cycloserine
K = Kanamycin
S = Streptomycin
Making = Moxifloxacin
Blind = Bedaquilline
Love = Linezolid
On
Date = Delamanid

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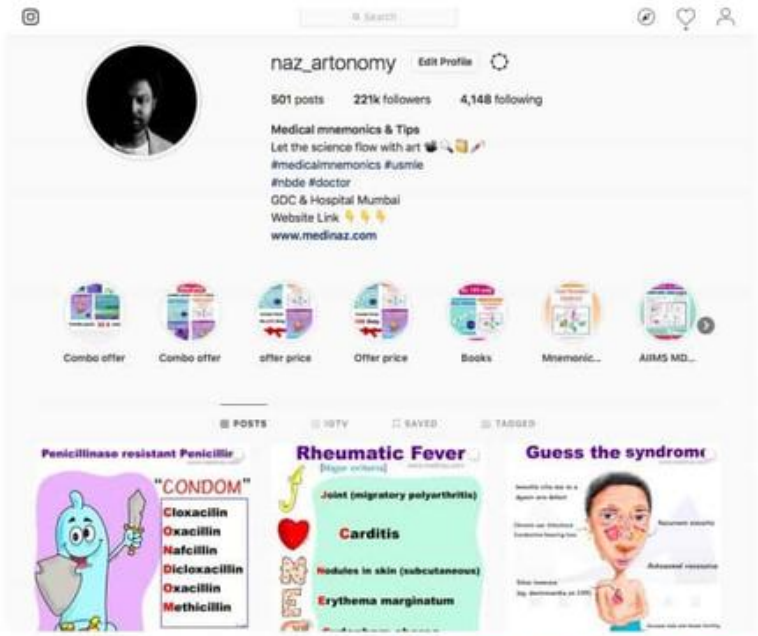
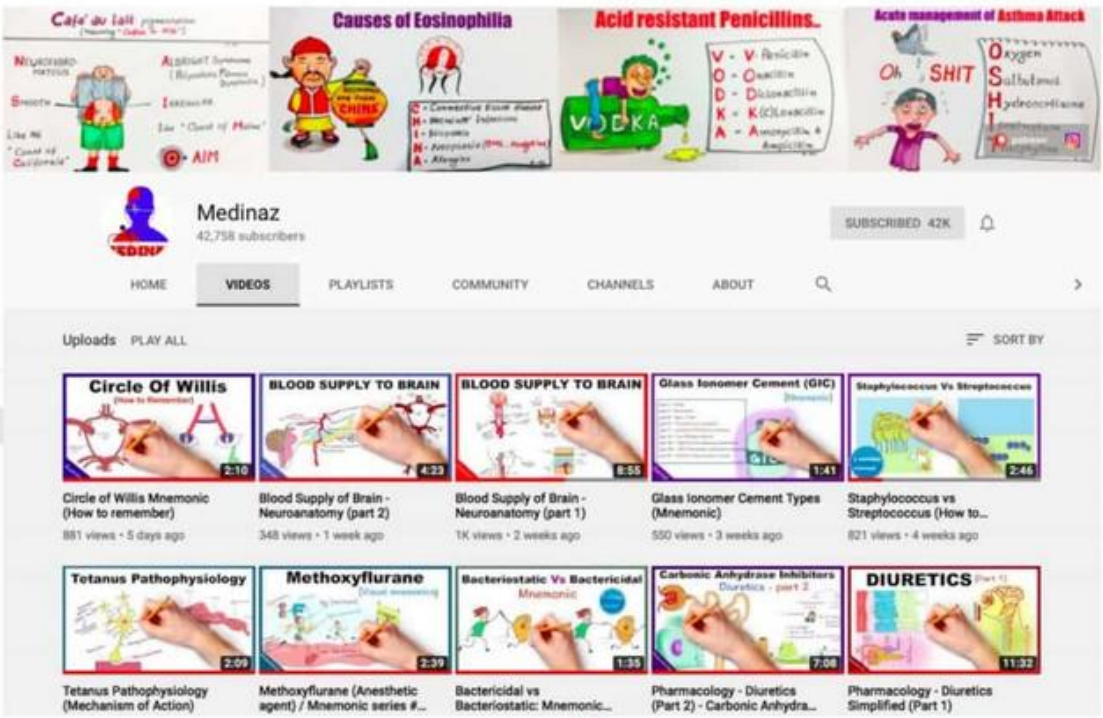


YouTube - "MEDINAZ"



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